

**CONTRACT DOCUMENTS
AND
SPECIFICATIONS
FOR
PROJECT NO. SP 22-02
2022 PARKING GARAGE REPAIRS TULSA
AUTHORITY FOR ECONOMIC OPPORTUNITY**

ATTENDANCE AT PRE-BID CONFERENCE IS MANDATORY

PREPARED BY:
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CITY OF
Tulsa
A New Kind of Energy™

PAUL D. ZACHARY, P.E., DIRECTOR
ENGINEERING SERVICES DEPARTMENT

Account Numbers: 7619741-541101

Engineering Services Department
2317 South Jackson Avenue
Tulsa, Oklahoma 74107
(918) 596-9565

CONTRACT DOCUMENTS

TULSA AUTHORITY FOR ECONOMIC OPPORTUNITY
PROJECT NO. TEAO SP 22-02
2022 PARKING GARAGE REPAIRS
TULSA AUTHORITY FOR ECONOMIC OPPORTUNITY
ENGINEERING SERVICES DEPARTMENT

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June 10, 13, 14, 15, 16, and 17, 2022

**NOTICE TO BIDDERS
SEALED BIDS FOR
TULSA AUTHORITY FOR ECONOMIC OPPORTUNITY
PROJECT NO. SP 22-02**

Notice is hereby given that pursuant to an order by the Tulsa Authority for Economic Opportunity a Public Trust, sealed bids will be received in Room 260 of the Office of the City Clerk, City of Tulsa, 175 E. 2nd Street, Tulsa, Oklahoma 74103 until **8:30 a.m., 8th day of July, 2022** for furnishing all tools, materials and labor and performing the work necessary to be done in the construction of the following:

PROJECT NO. SP 22-02 2022 Parking Garage Repairs Tulsa Authority for Economic Opportunity

The entire cost of the improvement shall be paid from Account No. 7619741-541101

A **MANDATORY** Pre-Bid Conference is scheduled for **Tuesday June 21, 2022 at 10:00 a.m.** and will be held through video conferencing with Microsoft Teams, invitation presented on the City of Tulsa's website at this link:
<https://www.cityoftulsa.org/government/departments/engineering-services/construction-bids/>

Attendance at the Pre-Bid Conference is MANDATORY. Bids will not be received from contractors who did not attend the Pre-Bid Conference.

Bids will be accepted by the City Clerk from the holder of valid pre-qualification certificates from the City of Tulsa in one or more of the following classifications: **A, B, or S**

Drawings, specifications and contract documents for construction of said public improvements of the said project have been adopted by the Mayor of said City. Copies of same may be obtained at the Office of the Director of Engineering Services for the City of Tulsa, 2317 South Jackson, Room 103, North Building, for a non-refundable fee in the amount of **\$50.00** made payable to the City of Tulsa by check or money order.

Contract requirements shall include compliance as required by law pertaining to the practice of non-discrimination in employment.

The overall aspirational Small Business Enterprise utilization goal for this project is **ten (10)** percent.

Attention is called to Resolution No. 18145 of August 23, 1988, requiring bidders to commit to the goal of employing on the project at least fifty percent bona fide residents of the City of Tulsa and/or MSA in each employment classification.

Attention is called to Resolution 7404 of November 8, 2006, requiring bidders, their subcontractors and their lower-tier subcontractors to hire only citizens of the United States.

The Authority, acting on behalf of the City of Tulsa, is exempt from the payment of any sales or use taxes, and pursuant to Title 68 O.S. Section 1356(10), direct vendors to the Authority are also exempt from those taxes. A bidder may exclude from his bid appropriate sales taxes which he will not have to pay while acting for and on behalf of the Tulsa Authority for Economic Opportunity. See Contract Article IIB.

A Certified or Cashier's Check or Bidder's Surety Bond, in the sum of 5% of the amount of the bid will be required from each bidder to be retained as liquidated damages in the event the successful bidder fails, neglects or refuses to enter into said contract for the construction of said public improvements for said project and furnish the necessary bonds within thirty days from and after the date the award is made.

The bidder to whom a contract is awarded will be required to furnish public liability and workmen's compensation insurance; Performance, Statutory, and Maintenance bonds acceptable to the Authority, in conformity with the requirements of the proposed contract documents. The Performance, Statutory, and Maintenance bonds shall be for one hundred percent (100%) of the contract price.

All bids will be opened and considered by the Bid Committee of said City at a meeting of said Committee to be held in the City Council Room of City Hall, 175 E. 2nd Street, in said City at **9:00 a.m. on the 8th day of July 2022.**

Dated at Tulsa, Oklahoma, this 10th day of June 2022.

(SEAL)

G.T. Bynum, Chairperson
Tulsa Authority for Economic Opportunity

INSTRUCTIONS TO BIDDERS**B-1. BIDS.**

Each bid Proposal shall be completed electronically on the electronic media provided, then printed, signed, and submitted along with the electronic media and the complete bound copy of the contract documents. In the event of a discrepancy between the pricing on the electronic media and hard copy of a Proposal, the hard copy pricing will govern. If electronic media is not provided and the bid Proposal is manual, the bid Proposal shall be submitted in ink. The written words shall govern over the figures if there is a difference between the two. No alterations, additions, or erasures shall be made on the Proposal. Erroneous entries shall be lined out, initialed by the bidder, and the correct entry inserted. The unit price bid must cover all expense for furnishing the labor, materials, tools, equipment, and apparatus of every description to construct, erect, and furnish all work required by and in conformance with the Drawings and Specifications.

Each bid shall be enclosed in a sealed envelope addressed to the, Tulsa Authority for Economic Opportunity c/o City of Tulsa, 175 E. 2nd Street, Room 260, City Hall, Tulsa, Oklahoma identified on the outside with the words:

PROJECT NO. SP 22-02 2022 Parking Garage Repairs Tulsa Authority for Economic Opportunity

Pre-qualification Certificate Number _____.

And shall be filed with the City Clerk, Room 260, City Hall.

All addenda to the contract documents, properly signed by the bidder, shall accompany the bid when submitted.

B-2. BID SECURITY.

Each bid shall be accompanied by a cashier's check, a certified check, or a bidder's bond, in the amount of five percent (5%) of the total amount bid.

The bid security shall be made payable, without condition, to the Tulsa Authority for Economic Opportunity, Tulsa, Oklahoma, hereinafter referred to as the Authority. The bid security may be retained by and shall be forfeited to the Authority as liquidated damages if the bid is accepted, a contract based thereon is awarded, and the bidder fails to enter into a contract in the form prescribed, with legally responsible sureties, within thirty (30) days after such award is made by the Authority.

B-3. RETURN OF BID SECURITY.

The bid security of each unsuccessful bidder will be returned when his bid is rejected. The bid security of the bidder to whom the contract is awarded will be returned when he executes a contract and files satisfactory bonds. The bid security of the second lowest responsible bidder may be retained for not to exceed **sixty (60)** days pending the execution of the contract and bonds by the successful bidder.

B-4. WITHDRAWAL OF BIDS.

No bidder may withdraw his bid for **sixty (60)** days after the date and hour set for the opening. A bidder may withdraw his bid any time prior to expiration of the period during which bids may be submitted by making a written request signed in the same manner and by the same person who signed the Proposal.

B-5. REJECTION OF BIDS.

Bids received more than **ninety-six (96)** hours, before the time set for opening bids, excluding Saturdays, Sundays, and Holidays, as well as bids received after the time set for opening bids, will not be considered and will be returned unopened.

The Tulsa Authority for Economic Opportunity reserves the right to reject any and all bids when such rejection is in the best interest of the Authority. All bids are received subject to this stipulation and the Authority reserves the right to decide which bidder shall be deemed lowest responsible bidder. A violation of any of the following provisions by the bidder shall be sufficient reason for rejecting his bid, or shall make any contract between the Authority and the Contractor that is based on his bid, null and void: divulging the information in said sealed bid to any person, other than those having a financial interest with him in said bid, before the bids have been opened; submission of a bid which is incomplete, unbalanced, obscure, incorrect, or which has conditional clauses, additions, or irregularities of any kind not in the original proposal form, or which is not in compliance with the Instruction to Bidders and published Notice to Bidders, or which is made in collusion with another bidder. The Authority shall have the right to waive any immaterial defects or irregularities in any bid received.

B-6. DISQUALIFICATION OF BIDDERS.

No contract will be awarded to any person or persons, firm, partnership, company, or corporation which is in arrears to the Authority upon any debt of contract, or in default as surety or otherwise upon any obligation to the Authority.

B-7. SIGNATURE OF BIDDERS.

Each bid shall be properly signed with the full name of the company or individual submitting the bid, the bidder's address, and the name and title of all persons signing printed below their signature lines. Bids by partnerships shall be signed with the partnership name followed by the signature and title of one of the partners. Bids by corporations shall be signed with the name of the corporation followed by the signature and title of the president, vice president, chairman, or vice chairman of the Board of Directors with attestation by the corporate secretary or assistant corporate secretary. **Resolution must be dated no more than 30 days prior to date of signature of the contract/ bond etc.** Bids by joint ventures shall be signed by each participant in the joint venture. Bids by limited liability companies shall be signed with the name of the limited liability company followed by the signature and title of the Manager or Managing Member. Bid by limited partnerships shall be signed with the name of the limited partnership followed by the signature of the general partner. Note: The signature requirements listed

above are for Oklahoma entities; entities organized in other states must follow the law of the state in which they are organized.

A bid by a person who affixes to his signature the word "President", "Manager", "General Partner", "Agent", or other title, without disclosing the name of the company for which he is signing, may be held to be the bid of the individual signing.

B-8. INTERPRETATION OF CONTRACT DOCUMENTS.

If any person who contemplates submitting a bid is in doubt as to the true meaning of any part of the drawings, specifications, or other proposed contract documents he may submit to the Engineer a written request for an interpretation thereof. The person submitting the request shall be responsible for its prompt delivery. Interpretation of the proposed contract documents will be made only by addendum. A copy of each addendum will be mailed or delivered to each person obtaining a set of contract documents from the Engineer. The Authority will not be responsible for any other explanations or interpretations of the proposed contract documents.

B-9. LOCAL CONDITIONS AFFECTING WORK.

Each bidder shall visit the site of the work and shall completely inform himself relative to construction hazards and procedure, labor, and all other conditions and factors, local and otherwise, which would affect prosecution and completion of the work and its cost. Such considerations shall include the arrangement and condition of existing structures and facilities, the procedure necessary for maintenance of uninterrupted operation of existing facilities, the availability and cost of labor, and facilities for transportation, handling, and storage of materials and equipment. All such factors shall be properly investigated and considered in the preparation of the bid. There will be no subsequent financial adjustment for lack of such prior information.

B-10. TIME OF COMPLETION.

The time of completion is an essential part of the contract and it will be necessary for each bidder to satisfy the Authority of his ability to complete the work within the allowable time set forth in the Bid Form. In this connection, attention is directed to the provisions of the General Conditions and Special Conditions relative to delays, extensions of time, and liquidated damages.

B-11. QUALIFICATION OF BIDDERS.

No bid will be received and filed by the Authority unless the person submitting the bid has been pre-qualified as provided by ordinance and is the holder of a current certificate of Pre-qualification in force and effect on the date such bid is to be submitted and filed.

B-12. TAXES AND PERMITS.

Attention is directed to the requirements of the General Conditions regarding

payment of taxes and obtaining permits. Contractor shall comply with all zoning ordinances of the City, as provided in the Tulsa Zoning Code, Title 42 Tulsa Revised Ordinances and conform with all zoning requirements established by the Tulsa Metropolitan Area Planning Commission and the Board of Adjustment. Contractor can call the Indian Nations Council of Governments (INCOG) at (918) 584-7526, to determine if any zoning requirements must be met.

B-13. OKLAHOMA LEGAL REQUIREMENTS.

The Contractor must comply with the Oklahoma Scaffolding Law, 40 Oklahoma Statutes, Sections 174 – 177, which cover erection and use of scaffolds, hoists, cranes, stays, ladders, supports, or other mechanical contrivances.

In accordance with Oklahoma Statutes, Title 68, Section 1701-1707, before commencing any work pursuant to this contract, any nonresident contractor shall give written notice by certified mail, return receipt requested, to the Oklahoma Tax Commission, the Oklahoma Employment Security Commission, the Workers Compensation Court, and the county assessor of each county in which work will be performed. The notices shall comply with the requirements set forth in said statute.

B-14. BONDS.

The bidder to whom a contract is awarded will be required to furnish bonds as follows:

- a. **Performance Bond.** A Performance Bond to the Authority in an amount equal to one hundred percent (100%) of the contract price.
- b. **Statutory Bond.** A Statutory Bond to the State of Oklahoma in an amount equal to one hundred percent (100%) of the contract price.
- c. **Maintenance Bond.** A Maintenance Bond to the Authority in an amount equal to one hundred percent (100%) of the contract price.

The bonds shall be executed on the form included in the contract documents by a surety company authorized to do business in the State of Oklahoma and acceptable as Surety to the Authority.

Accompanying the bonds shall be a "Power-of-Attorney" authorizing the attorney-in-fact to bind the surety company and certified to include the dates of the bonds.

B-15. BOUND COPY OF CONTRACT DOCUMENTS.

The Bid Form or other pages shall not be removed from the bound copy of contract documents. The copy of contract documents filed with each bid shall be complete and shall include all items listed in the Table of Contents and all addenda.

B-16. EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS.

Each bidder agrees to comply with the terms of Title 5, Chapter 1, Section 111, of the Tulsa Revised Ordinances relating to Non-Discrimination.

B-17. BASIS FOR AWARD OF CONTRACT.

The basis for award of a contract shall be the total base bid submitted by the lowest responsible bidder unless otherwise directed in the form of proposal. The Authority reserves the right to withhold the awarding of a contract for a reasonable period of time from the date of opening of bids. The awarding of a contract upon a successful bid shall give the bidder no right of action or claim against the Authority upon such contract until the same shall have been reduced to writing and duly signed by the contracting parties. The award of a contract will not be completed until the contract is duly executed and the necessary bonds and insurance approved.

B-18. TIME FOR AWARDING OF CONTRACT.

The awarding of a contract to the lowest responsible bidder will be made within thirty (30) days after the opening of bids unless the Authority by formal recorded action and for good cause shown, provides for a reasonable extension of that period, which extension period shall not in any event exceed fifteen (15) days where only state or local funds are involved, or not to exceed ninety (90) days on any award of a contract for the construction of a public improvement where funds are utilized which are furnished by an agency of the federal government.

B-19. SAFETY AND HEALTH REGULATIONS.

Bidders should note that they are subject to "Safety and Health Regulations for Construction", Chapter XVII of Title 29, CFR, Part 1926 and that compliance, review and enforcement are the responsibility of the U. S. Department of Labor.

The Contractor is fully responsible for the safety of the work site and is expected to train their employees in all applicable safety issues. This should include but not be limited to: trench safety, confined space entry, head protection, etc. In accordance with construction contracts with the City, Authority, Board, or Commission, all applicable Labor and OSHA safety regulations must be followed.

Work sites must be monitored by the Contractor and safety provisions enforced. Contractors are asked to ensure that all employees are properly informed and trained in construction, work site safety.

B-20. VENDOR AND SUBCONTRACTOR IDENTIFICATION.

Where Vendor and Subcontractor Identification Questionnaires are included in the bid documents, each bidder shall submit the Questionnaire directly to the Engineer no later than 5:00 p.m. on the first working day following the bid opening. Failure to submit the questionnaire may render the bid unresponsive and not eligible for award. The award of the contract is based on the equipment specified.

Proposed substitutions will be considered only after award. The vendors and subcontractors listed on the questionnaire shall be used on the project unless otherwise adjusted by rejection of proposed substitution. No changes in the vendor and subcontractor list will be permitted unless prior consent is obtained from the Engineer.

B-21. ENVIRONMENTAL PROTECTION AGENCY NPDES REQUIREMENTS.

The bidder's attention is directed to U. S. Environmental Protection Agency (EPA) NPDES requirements for stormwater discharges. The Contractor shall be responsible for filing a Notice of Intent and development and implementation of a Stormwater Pollution Prevention Plan (PPP).

B-22 AMERICANS WITH DISABILITIES ACT

The Contractor shall take the necessary actions to ensure its facilities are in compliance with the requirements of the Americans with Disabilities Act (ADA). It is understood that the program of the Contractor, is not a program or activity of the City of Tulsa. The Contractor agrees that its program or activity will comply with the requirements of the ADA. Any costs of such compliance will be the responsibility of the Contractor. Under no circumstances will the Contractor conduct any activity, which it deems non-compliant with the ADA.

RESOLUTION NO. 18145

A RESOLUTION REQUIRING THE INCLUSION IN PLANS AND SPECIFICATIONS FOR PUBLIC IMPROVEMENT CONTRACTS OF PROVISIONS PROVIDING FOR THE EMPLOYMENT OF BONA FIDE RESIDENTS OF THE CITY OF TULSA; AND/OR THE MSA; ALSO PROVIDING THAT AT LEAST OF FIFTY PERCENT (50%) OF EACH CLASS OF EMPLOYEES USED ON A PROJECT BE BONA FIDE RESIDENTS OF THE CITY OF TULSA AND/OR THE MSA; THAT THE DIRECTOR OF THE DEPARTMENT OF HUMAN RIGHTS IS CHARGED WITH ENSURING THAT ALL BIDS FOR PUBLIC CONSTRUCTION CONTRACTS COMPLY WITH THIS RESOLUTION; AND DECLARING AN EMERGENCY.

WHEREAS, City of Tulsa, Oklahoma, desires to achieve a goal of full employment.

WHEREAS, it is necessary for the protection of the health, safety and welfare of all residents of the City of Tulsa, Oklahoma, to accomplish this goal.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF THE CITY OF TULSA, OKLAHOMA:

SECTION 1. The City of Tulsa is committed to the policy of achieving full employment of its citizens by encouraging the employment of bona fide Tulsa and MSA residents in public improvement contracts.

SECTION 2. Definitions. The definitions of certain terms used in this resolution are as follows:

- a. "Bidding Documents" or "Bid" means the bid notice, plans and specifications, bidding form, bidding instructions, special provisions and all other written instruments prepared by or on behalf of an awarding public agency for use by prospective bidders on a public construction contract.
- b. (i) "Bona Fide Residents" shall include only those persons who are either registered to vote in the City of Tulsa or who have resided within the city limits for at least six months, or who have purchased a permanent residence within the city limits or who have leased a residence for at least a six month term. Residency may be further determined by a valid Oklahoma driver's license, a current Oklahoma license tag, and a valid Oklahoma automobile inspection sticker. (ii) Bona fide residents of MSA shall include only those persons who are registered to vote in outlying MSA areas or who have resided within the outlying MSA area for at least six months, or who have purchased a permanent residence within the outlying MSA areas or who have leased a residence for at least a six month term. Residency may be further determined by a valid Oklahoma driver's license, a current Oklahoma license tag, and a valid Oklahoma automobile inspection sticker.
- c. "Public Construction Contract" or "Contract" means any contract exceeding Seven Thousand Five Hundred Dollars (\$7,500.00) in amount, awarded by the City of Tulsa for the purpose of making any public improvements or constructing any public building or making repairs to the same.
- d. "Public Improvement" means any beneficial or valuable change or addition, betterment, enhancement or amelioration of or upon any real property, or interest therein, belonging to the City of Tulsa, intended to enhance its value, beauty or utility or to adapt it to new or further purposes. The term does not include the direct purchase of materials, equipment or supplies by the City of Tulsa.

CITY OF TULSA
FILED

AUG 23 1988

Office Of City Auditor

- e. "MSA". All of the land areas composed of Creek County, Osage County, Rogers County, Tulsa County and Wagoner County.

SECTION 3. Residency Requirements of Contractor's Employees. Every employee and/or agent of the City of Tulsa, Oklahoma, charged or involved with the preparation of plans and specifications for any public improvement funded in whole or in part with funds of the City of Tulsa, is hereby charged to include in said plans and specifications the following provisions which shall be binding upon the successful bidders:

- a. Each bid shall be accompanied by a sworn statement that the bidder is committed to the goal of employing at least 50% bona fide residents of the City of Tulsa and/or the MSA in each classification as determined by the Oklahoma Commissioner of Labor.
- b. The successful bidder will be responsible for having like requirements placed upon any subcontractor.
- c. The successful bidder will submit to the Director or his designated representative of the Department of Human Rights any compliance reports involving the bidder and its subcontractors required by Title 31, Chapter 1, Section 9, of the Tulsa Revised Ordinances. The reports shall include information about the residence of each employee in each laboring and trade class applicable to any City project.

SECTION 4. Unresponsive Bids. The failure to submit the documents required by Section 3 shall render a bid unresponsive. Said documents must be submitted prior to the opening of the bids. The Director of the Department of Human Rights Section of City Development is charged with ensuring that all bids comply with Section 3 prior to the bid opening date.

SECTION 5. Duty of Employees and/or Agents of the City of Tulsa. Any employee and/or agent of the City of Tulsa who fails to include the goals for residency requirements found in Section 3 in the plans and specifications for any public improvement may be subject to disciplinary action, including dismissal.

SECTION 6. Severability. The invalidity of any section, subsection, provision or clause or portion of this chapter, or the invalidity of the application thereof to any person or circumstance shall not affect the validity of the remainder of this chapter or the validity of its application to other persons or circumstances.

SECTION 7. Effect Date. This resolution shall take effect as of July 1, 1988.

SECTION 8. Emergency Clause. That an emergency exists for the preservation of the public peace, health and safety, by reason whereof this resolution shall take effect immediately upon its passage, approval and publication.

PASSED, with the emergency clause ruled upon separately and approved this 23rd day of August, 1988.

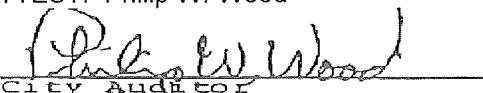
APPROVED, this 23rd day of August, 1988.

Rodger Randle

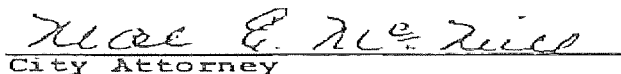


Mayor

ATTEST: Philip W. Wood


City Auditor

APPROVED: Neal E. McNeil


City Attorney

PASSED, with the emergency clause ruled upon
separately and approved this 23 day of August, 1988.

- APPROVED, this 23 day of August, 1988.



Mayor

ATTEST:



City Auditor

APPROVED:



City Attorney

CITY OF TOLEDO
FILED

AUG 23 1988

A.M. Office Of City Auditor P.M.
By _____ 1

CITY OF TULSA, OKLAHOMA

SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION INSTRUCTIONS

BID OPENING AND AWARD SYSTEM

02.21.22

POLICY STATEMENT

The City of Tulsa (hereinafter City) is committed to implementing the City of Tulsa Small Business Enterprise (SBE) Program of the City of Tulsa, hereinafter referred to as SBE Program. The stated objectives of the programs are:

- To ensure the employment of SBE(s) in the award and administration of City agreements and contracts;
- To create a level playing field on which SBE firms can compete fairly for City contracts;
- To ensure that only firms that fully meet the eligibility standards are permitted to participate as SBE participants;
- To help remove barriers to participation in City contracts;
- To assist in the development of SBE firms so that they may graduate from the SBE Program and ultimately compete successfully in the marketplace.

GOALS BY BUSINESS CATEGORY – SBE

There are seven (7) Business Categories for the City of Tulsa: Construction Contractors (Prime and Subcontractor), Architecture / Engineering (Consultant and Subconsultant), Professional Services, Other Services, and Goods and Supplies. A general description of each category follows:

Construction

- General building contractors engaged primarily in the construction of commercial buildings.
- Heavy construction such as airport runways, bridges, plants, grading and drainage, roadways, and other municipal infrastructure.
- Light maintenance construction services such as carpentry work; electrical work; installation of carpeting; air-conditioning repair, maintenance, and installation; plumbing; and renovation.
- Other related services such as water and sewer lines and maintenance, asbestos abatement, drainage, dredging, grading, hauling, landscaping (for large construction projects such as boulevards and highways), paving, roofing, and toxic waste clean-up.

Architecture and Engineering

- Licensed Architect
- Landscape Architect
- Professional Engineer
- Professional Land Surveyor
- Construction observation
- Other professional design / construction related services

CITY OF TULSA, OKLAHOMA

SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION INSTRUCTIONS

BID OPENING AND AWARD SYSTEM

Professional Services

- Financial Services
- Legal services
- Medical services
- Educational services
- Real Estate services
- Planning services.
- Other professional services

Other Services

- Janitorial and maintenance services
- Uniformed guard services
- Computer services
- Certain job shop services
- Graphics, photographic services
- Landscaping
- Other non-technical professional services

Good and Supplies

- Office goods
- Medical supplies
- Miscellaneous building materials
- Computers

The goals are to reflect resource availability and capability. The City of Tulsa's goal is to mitigate and close the disparity between the availability/capability versus actual utilization of SBE firms in Creek, Okmulgee, Osage, Pawnee, Rogers, Tulsa, and Wagoner counties in Oklahoma.

The City enters various agreements and contracts with the private sector for services, goods and supplies, and construction activities. The agreements or contracts may have a specific or primary deliverable associated with one of the Business Categories. However, supplementary efforts may exist to fulfill the agreement or contract. Therefore, the table below is provided to show goals for all Business Categories. Good faith efforts shall first be focused on the Business Category or Categories that relate directly to the deliverables. Additional good faith efforts shall be in supplementary efforts from other categories to assist in meeting the overall project goal.

The project goals will be monitored and periodically adjusted to address the disparity between the available / capable / willing SBE firms versus actual utilization of SBE firms. The **overall project goal is 10%.**

SBE firms identified for utilization in an agreement or contract must be paid from the proceeds from that agreement or contract.

**CITY OF TULSA, OKLAHOMA
SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION INSTRUCTIONS
BID OPENING AND AWARD SYSTEM**

<i>Business Category</i>	<i>SBE Goal (%)</i>
Construction (Prime Contractors)	10
Construction (Subcontractors)	10
Architecture / Engineering (Consultant)	10
Architecture / Engineering (Subconsultant)	10
Professional Services	10
Other Services	10
Goods and Supplies	10

BIDDER'S ACTIONS

For a:

- A. **GENERAL / PRIME CONTRACTOR Contract:** When the City has established SBE contract goals (hereinafter referred to as "goals"), the City will award a contract only to a bidder who makes good faith efforts to meet the goals.
- B. **CONSTRUCTION MANAGEMENT AT-RISK (CMAR) Contract:** When the City has established SBE contract goals (hereinafter referred to as "goals"), the City will recommend award to the Construction Management (CM) firm the bidder who makes good faith efforts to meet the goals. **However, Bidder(s) who are SBE(s) are not required to solicit other SBE firms but are encouraged.**

The following summary outlines the procedures

Summary:

- 1. **RECORD OF SOLICITATION FOR SBE form:**
These forms **MUST** be submitted with the bid documents. These documents establish the initial good faith, outreach efforts. In the event the bidder submitted the lowest bid, the SBE firms identified on these forms submitted with the bid are the only SBE firms that will be considered for establishing the bidder's projected utilization percentages for consideration of the award of bid.
- 2. **LETTER OF INTENT TO CONTRACT WITH SBE form:**
The bidder that submits the apparent lowest bid will be notified by City staff no later than the Monday following bid opening. The apparent low bidder **MUST** submit these forms and the associated attachments by close of business on Thursday following bid opening. Only SBE firms documented on the **RECORD(s) OF SOLICITATION FOR SBE** forms submitted with the bid will be considered for establishing the bidder's projected utilization percentages for consideration of the award of bid. If Letters of Intent are not submitted, the projected utilization will be 0% and the apparent lowest bidder is subject to being deemed non-responsive.

CITY OF TULSA, OKLAHOMA
SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION INSTRUCTIONS
BID OPENING AND AWARD SYSTEM

3. ADMINISTRATIVE RECONSIDERATION:

If the City determines that a bidder failed to meet the requirements above, City staff will contact the bidder by phone to define the issue and clarify any miscommunications and/or inadvertent actions. If issue was not due to miscommunication and/or inadvertent actions, the bidder will be notified per the Administrative Reconsideration process defined below. If the apparent low bidder is deemed non-responsive, City staff will notify the next lowest bidder to submit their LETTERS OF INTENT TO CONTRACT WITH SBE by close of business of the 6th day following notification or may exercise its right to reject any and all bids.

4. CITY OF TULSA SBE UTILIZATION form:

This form is completed by the contractor (successful bidder) and submitted as part of the contract to perform the project. This form documents the “projected” utilization for the project. At the end of the project, this form is submitted with the final pay request documenting the “actual” utilization. The “actual” utilization must meet or exceed the “projected” utilization. Any change in the “projected” utilization must be documented, submitted to the City on the CHANGE REQUEST FOR SBE PARTICIPATION form, and approved by the City. Approval of the change must occur at the time of the change. If the change is a reduction and not submitted and approved per the instructions, the amount will be deducted from the contractor’s final pay request.

5. CHANGE REQUEST FOR SBE PARTICIPATION form:

This form documents any change to the “projected” utilization for the project. Change in utilization includes reduction, substitution, and/or increase. Utilization shall be checked with the submission of partial pay requests, but not longer than 30 day intervals throughout the project. The contractor’s acknowledgement that they have verified changes in his/her utilization is required as part of partial pay request documents. Reductions in utilization not approved prior to the final pay request will result in pay reduction to the contractor. If, at the completion of the project, the contractor has failed to meet the SBE contract goals, does not have an approved change request, and has not demonstrated good faith efforts to meet the contract goal, the contractor will be assessed liquidated damages for the difference between the contract goal and the actual SBE participation achieved.

Record of Solicitation

All bidders shall, **with the submissions of their bids**, show their RECORD(s) OF SOLICITATION FOR SBE that demonstrates the good faith outreach effort to meet or exceed the SBE goals established for the project.

If bidders cannot meet the established SBE goals, the bidders shall document and submit with their bid proposal, justification stating why they could not meet the established SBE goals. To demonstrate good faith efforts to meet the SBE goals, the bidders shall document their efforts to obtain SBE participation. City will review and determine that the information is complete, accurate and adequately documents the bidder’s good faith efforts before committing to the award of the contract to the bidder. In the event that the City awards a contract to a bidder who cannot meet the established SBE goals,

CITY OF TULSA, OKLAHOMA

SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION INSTRUCTIONS

BID OPENING AND AWARD SYSTEM

the findings of the City's review shall be in written form and shall be incorporated into and become part of the contract documents.

If the bidder to whom City proposes to award the contract is able to demonstrate good faith efforts, City may accept the bidder's proposed goal. Acceptance by the City of the bidder's proposed goal does not release the bidder from its contractual obligation to continue to make efforts throughout the duration of the project to utilize SBE firms on the project.

All bidders shall submit with their bid the completed and signed RECORD OF SOLICITATION FOR SBE form.

Letter of Intent

The bidder must submit to the Engineering Contract Coordinator written confirmation from the SBE firms on the form LETTER OF INTENT TO CONTRACT WITH SBE that it is participating in the contract as provided in the contractor's bid commitment. This may be submitted with the bid, but not later than the City's close of business of the Thursday following the bid opening. The signed forms will define the contractor's final proposed utilization and will be the basis of a final evaluation. If inadequate utilization is proposed, the bid shall be considered non-responsive.

The SBE firms submitted on the LETTER OF INTENT TO CONTRACT WITH SBE forms shall be considered binding and changes of committed SBE firms may only be made after the contract is fully executed, and may only be changed through the submission, review and approval of form CHANGE REQUEST FOR SBE PARTICIPATION.

Failure to make the written assurance (City form LETTER OF INTENT TO CONTRACT WITH SBE), which includes the names of the SBE firms to be used, the work they will perform, and the price for the work, or failure to demonstrate good faith efforts that is deemed acceptable to the City to meet or exceed the SBE goals, shall render a bid non-responsive.

It is the contractor's responsibility to submit the information necessary for the City to ascertain compliance with the good faith efforts requirement. Extra cost involved in finding and utilizing SBE firms shall not be deemed adequate reason for the bidder's failure to meet the project SBE goals unless such costs are grossly excessive.

In instances where a successful bidder's SBE commitment exceeds the actual SBE contract goals, the submitted goals of the bidder become the contractual obligation.

In instances where a successful bidder's SBE commitment is below the SBE contract goals, the submitted utilization goals become the contractual obligation.

Good Faith Efforts

The steps taken by the bidder to obtain SBE participation shall be documented in writing and shall include, but are not limited to, the following good faith efforts:

CITY OF TULSA, OKLAHOMA
SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION INSTRUCTIONS
BID OPENING AND AWARD SYSTEM

- A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) in the interest of all certified SBE firms capable to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the SBE firms to respond to the solicitation. The bidder must determine with certainty if the SBE firms are interested by taking appropriate steps to follow-up on the initial solicitation.
- B. Selecting portions of the work to be performed by SBE firms in order to increase the likelihood that the SBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate SBE participation, even when the contractor might otherwise prefer to perform these work items with its own forces.
- C. Providing interested SBE firms with adequate information about the plans, specifications and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- D. Negotiating in good faith with interested SBE firms:
- (1) It is the bidder's responsibility to make a portion of the work available to SBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available SBE subcontractors and suppliers, to facilitate SBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of SBE firms that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for SBE firms to perform the work. RECORD OF SOLICITATION FOR SBE form will be submitted.
 - (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including available SBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using SBE firms is not sufficient justification for a bidder's failure to meet the contract SBE goals, as long as such costs are reasonable. Also, the ability or desire of a contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Contractors are not, however, required to accept higher quotes from SBE firms to fulfill the SBE contract requirements if the price difference is excessive or unreasonable. Documentation of quotes shall be submitted to the City with the bid as part of the bidder's record of solicitation.
- E. Thoroughly analyzing the capabilities of SBE firms before determining a firm's qualification for a project. The following shall not be legitimate causes for the rejection or non-solicitation of SBE quotes in the efforts of the contractor to meet the project goal: (1) the subcontractor's standing, unrelated to job performance, within the industry; (2) membership in specific groups or organizations; or, (3) association with certain political and/or social organizations.

Administrative Reconsideration

CITY OF TULSA, OKLAHOMA

SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION INSTRUCTIONS

BID OPENING AND AWARD SYSTEM

If City determines that a bidder fails to meet the requirements stated above, the bidder will be provided an opportunity for administrative reconsideration. City staff will contact the bidder by phone to define the issue and clarify any miscommunications or inadvertent actions. If issue was not due to miscommunication and/or inadvertent actions, the following process will be followed:

1. The bidder will be notified by fax/email within ten working days following the bid opening.
2. The bidder will have 2 working days from time of notification to schedule a meeting for the purpose of administrative reconsideration with a City of Tulsa Attorney. Reconsideration meetings will generally be held within 7 days of notification of a bidder being determined non-responsive.

As part of this administrative reconsideration, the bidder will have the opportunity to meet in person with a City of Tulsa Attorney to present arguments concerning whether it met the goal or made adequate good faith efforts to do so. Submittal of additional information documenting solicitation, which was due with the original bid submission, will not be accepted or considered.

3. The decision on reconsideration will be made by a City of Tulsa Attorney who did not take part in the original determination that the bidder failed to meet the goal or make adequate good faith efforts to do so.
4. No awards will be made until all administrative reconsiderations as outlined herein are complete. A City of Tulsa Attorney will provide a written decision on reconsideration to the bidder. This decision will explain the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. The determination is copied to the Contract Administrator, City Engineer, and the Director of Human Rights.

CONTRACTOR ACTIONS AFTER AWARD OF THE CONTRACT:

Counting SBE Participation Toward the Goal

When a SBE participates in a contract, only the value of the work actually performed by the SBE is counted toward the contract goal.

The entire amount of that portion of a contract that is performed by the SBE firm's own forces is counted, including the cost of supplies and materials obtained by the SBE for the work on the contract, including supplies purchased or equipment leased by the SBE (except supplies and equipment the SBE purchases or leases from their Prime Contractor).

When a SBE performs as a participant in a joint venture, the portion of the total dollar value of the contract equal to the clearly defined portion of the work that the SBE performs with its own forces may be counted toward the goal.

CITY OF TULSA, OKLAHOMA

SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION INSTRUCTIONS

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Only expenditures to a SBE contractor who performs a commercially useful function may be counted toward a SBE goal.

Commercially Useful Function

A SBE performs a commercially useful function when it is responsible for the execution of the work of its contract and is carrying out its responsibilities by actually performing, managing and supervising the work involved. The SBE must be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself.

To determine whether a SBE is performing a commercially useful function, City will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid is commensurate with the work it is actually performing and the SBE credit claimed, and other relevant factors.

A SBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction through which funds are passed in order to obtain the appearance of SBE participation. In determining whether a SBE is acting as a pass-through, City will examine similar transactions, particularly those in which SBE firms do not participate.

Manufacturers and Material Suppliers

If the materials or supplies are obtained from a certified SBE manufacturer, 100 percent of the cost of the materials or supplies will be counted toward the SBE goals. A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials required under the contract as described by the specifications.

If the materials or supplies are purchased from a certified SBE regular dealer, 100 percent of the cost of the materials or supplies will be counted toward the SBE goals. A regular dealer is a firm that owns, operates or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment described by the specification and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating or maintaining a place of business as provided for in the above paragraph if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an ad-hoc or contract-by-contract basis.

In order for a firm to qualify as a SBE supplier of metal and/or concrete pipe, the firm must also fabricate the pipe. Metal or concrete pipe is specialty pipe which is project specific and is inspected

CITY OF TULSA, OKLAHOMA

SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION INSTRUCTIONS

BID OPENING AND AWARD SYSTEM

during the manufacturing process. This arrangement provides for no warehousing of metal or concrete pipe and essentially requires the manufacturer to be the supplier. Merely ordering pipe from the fabricator and in turn selling it to contractors is not consistent with normal industry practice. Contractors normally purchase pipe directly from the manufacturer, thus eliminating the middleman. Supplying metal or concrete pipe is viewed as brokering and is considered inconsistent with SBE program requirements.

Change Request for SBE Participation

Substitution or replacement of a SBE firms will only be permitted or allowed after award and execution of the City contract.

A contractor may not terminate for convenience a SBE listed in their contract (or an approved substitute SBE firm) and then perform the work of the terminated subcontract with its own forces or those of an affiliate, without City's prior written consent.

When a SBE is terminated, or fails to complete the work of the contract for any reason, the contractor must make good faith efforts to find another SBE to substitute for the original SBE. These good faith efforts shall be directed at finding another SBE to perform at least the same amount of work (not necessarily the same work) under the contract as the SBE that was terminated, to the extent needed to meet the SBE goals established in the contract.

When the contractor obtains a substitute SBE, the contractor shall provide the Engineering Contract Coordinator with copies of the CHANGE REQUEST FOR SBE PARTICIPATION form and supporting documentation.

If the contractor is unable to replace the SBE with another SBE, then the contractor must provide City with evidence in writing that they have made a good faith effort. The contractor must submit to the Engineering Contract Coordinator a CHANGE REQUEST FOR SBE PARTICIPATION form along with documentation to support they have made a good faith effort. City may adjust the goal as appropriate.

In the case where a contractor cannot meet the SBE goals of a contract, he or she should request a change of that portion of the SBE goal, which cannot be met. The request will be subject to the following:

- A written request for change will be initiated by the contractor at the time he or she reasonably knows that despite good faith efforts the contract goal cannot be achieved. The request will be included on the CHANGE REQUEST FOR SBE PARTICIPATION form and will contain written document all good faith efforts made to meet the goal as well as the reason for the change.
- The request for change, CHANGE REQUEST FOR SBE PARTICIPATION form, will be submitted for review to the Engineering Contract Coordinator. The City will make the decision on the approval or denial of the change request and inform the contractor.

CITY OF TULSA, OKLAHOMA SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION INSTRUCTIONS BID OPENING AND AWARD SYSTEM

- If, at the completion of the project, the contractor has failed to meet the SBE contract goals, does not have an approved change request, and has not demonstrated good faith efforts to meet the contract goal, the contractor will be assessed liquidated damages for the difference between the contract goal and the actual SBE participation achieved. The City shall deduct the liquidated damages from the final payment. In the event insufficient earnings remain for the reduction of liquidated damages, the City may claim against the contractor's bond, suspend the contractor under performance suspension, withhold further proposals, suspend prequalification and/or other remedies available under the law.
- In those instances when the goal is not met due to a change in quantity, which occurs through no fault of the contractor, but due to City and/or changed site conditions, a change request will be recommended by Field Engineering at the time the change becomes known, but not later than the next progressive payment application from the contractor which covers the work identified for the SBE firm. The change request will include the statement of quantity change(s). The contractor shall endeavor, with good faith efforts, to mitigate underruns by utilizing other SBE firms.

Change in utilization includes reduction, substitution, and/or increase. Utilization shall be checked with the submission of each partial pay request, but not longer than 30 day intervals throughout the project. The contractor's acknowledgement that they have verified changes in his/her utilization is required as part of partial pay request documents. Reductions in utilization not approved prior to the final pay request, will result in pay reduction to the contractor.

If a contractor fails to comply with this section, appropriate administrative remedies may be taken including, but not limited to:

- No additional progressive payments may be processed
- Refusal to issue proposals
- Liquidated damages
- Suspension of work on the project
- Suspension of prequalification
- Termination of the contract

Prompt Payments

To ensure that contractors' obligations under City contracts are met, the contractor shall endeavor to pay all subcontractors for satisfactory performance of their contracts no later than fifteen (15) calendar days after receipt of each progressive payment from City. The contractor must further endeavor to make prompt release of retainage held to the SBE within thirty days after the work is satisfactorily completed, whether the contractor's work is complete or not. The term "satisfactorily completed" is defined as when; 1) City finds the work completed in accordance with the Plans and Specifications; 2) any required paperwork, including material certification, payrolls, etc., have been received and approved by City; 3) Field Engineering has determined the final quantities on the subcontractor's portion of the work; and 4) Contractor has received progressive payments from City which includes subcontractors' work.

CITY OF TULSA, OKLAHOMA

SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION INSTRUCTIONS

BID OPENING AND AWARD SYSTEM

In an effort to accelerate payments to subcontractors, the City may pay the Contractor for acceptable material stockpiled or delivered to the project, at other approved or designated locations, or at a plant site required for Contractor's operations as approved by the City. This is governed by Oklahoma Department of Transportation Standard Specifications for Highway Construction 2009 or latest edition.

Contractor shall endeavor to include invoices from SBE for materials on hand, partially completed work, or complete work on the earliest partial payment request submitted to the City. It is incumbent on the SBE to submit invoices to the Contractor in a timely manner.

Failure to comply with the prompt payment and return of retainage provisions of the contract may result in sanctions under the contract, as listed below:

- Refusal to issue proposals
- Liquidated damages
- Suspension of work on the project
- No additional progressive payments may be processed
- Suspension of prequalification

Any delay or postponement of payment among the parties may take place only for good cause, with City written approval. The explanation from the contractor must be made in writing to the City.

Record Keeping Requirements

The contractor shall keep such records as are necessary to determine compliance with the SBE contract obligations. The records kept by the contractor will indicate:

1. The name(s) of SBE firms or other subcontractors, the type of work being performed, and payment for work, services and business.
2. Documentation of correspondence, verbal contracts, telephone calls, etc., to obtain services of SBE firms on the project.

Upon request, the contractor shall submit all subcontracts, purchase orders, contracts, agreements, and financial transactions, including canceled checks, executed with SBE firms with the reference to records referred to in this provision, in such form, manner, content prescribed by City.

The contractor should list all SBE firms in the contract and summarize total amounts paid to SBE firms and the project goal amount for each SBE firm.

Reciprocity

The City will grant reciprocity of membership in the SBE program to certified Oklahoma Department of Transportation Disadvantaged Business Enterprises which are located in the Tulsa Metropolitan Statistical Area.

(Must be submitted with Bid)

**CITY OF TULSA
BIDDER'S AFFIDAVIT FOR
SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION GOALS**

STATE OF)
) ss:
COUNTY OF)

_____, of lawful age, being first duly sworn, says that s(he) is the agent authorized by the bidder to submit the attached bid. Affiant further states that the bidder agrees to fully comply with the City of Tulsa's Resolution requiring that a good faith effort be made to utilize small business enterprises as subcontractors.

Affiant further states that s(he) will document on pages SBE-2BID, -3BID, -4BID, and -5BID for public record, his/her good faith efforts in solicitation.

Affiant further states that s(he) is responsible for having like requirements placed upon any subcontractor of said bidder.

Affiant further states that s(he) has read and agrees to the current CITY OF TULSA, OKLAHOMA SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION INSTRUCTIONS FOR BID OPENING AND AWARD SYSTEMS.

BIDDER (Company Name)

SIGNED

TITLE

SUBSCRIBED and SWORN to before me this _____ day of _____, 20_____.

NOTARY PUBLIC

MY COMMISSION EXPIRES:

SBE-1BID



RECORD OF SOLICITATION FOR SMALL BUSINESS ENTERPRISE (SBE)
(MUST BE SUBMITTED WITH BID)

- Project Name:
- Project Number:
- Prime Contractor:
- Prime Contractor Representative:
Consultants, Subcontractors, Service, Regular Dealers, Material Suppliers, & Fabricators:
- Contact Date(s):
- Name of Company:
- Address (Street, City, County, State):
- City of Tulsa SBE: <input type="checkbox"/> Yes <input type="checkbox"/> No
- City of Tulsa SBE Certificate Number:
- Other SBE Certificate Number(s):
- Company Contact Person:
- Phone No.: Email:
- Description of Work:
- Contract Documents provided to and/or reviewed by Company: <input type="checkbox"/> Yes <input type="checkbox"/> No
- Will City of Tulsa SBE be utilized? <input type="checkbox"/> Yes <input type="checkbox"/> No
- If Yes, Estimated Agreement Amount: \$
- If No, description of reasons why agreement could not be reached for City of Tulsa SBE to perform work:



**CITY OF
Tulsa**
A New Kind of Energy.

LETTER OF INTENT
TO CONTRACT WITH SMALL BUSINESS ENTERPRISE (SBE)
(Must be submitted by close of business on Thursday following bid opening)

Engineering Services Department, Attn: Contract Administration

CITY OF TULSA

2317 South Jackson, N-103

Tulsa, Oklahoma 74107

Ph.: 918.596.9637

Fax: 918.596.1299

Project Name: _____

Project Number: _____

Submittal Date: _____

Prime Contractor

HEREBY, intends to subcontract items of work generally described as

to:

SMALL BUSINESS ENTERPRISE

Total amount of participation by City of Tulsa SBE: \$ _____
(City of Tulsa SBE, quote must be attached)

City of Tulsa SBE: ☐ Yes ☐ No

City of Tulsa SBE Certificate Number: _____

Other SBE Certificate Number(s): _____

SMALL BUSINESS ENTERPRISE

Signature: _____

Title: _____

Date: _____

PRIME CONTRACTOR

Signature: _____

Title: _____

Date: _____

Signatures of Authorized representatives of the Prime Contractor and the City of Tulsa SBE firm above represent the written commitment by the Prime Contractor to subcontract with the City of Tulsa SBE firm and a written commitment by the City of Tulsa SBE firm to subcontract for work as described in the attached quote.

This form, along with the City of Tulsa SBE firm's quote must be submitted to the City with the executed Contract documents. If this form is not received, the proposed utilization will NOT be counted as part of the Prime Contractor's agreement. This may cause the agreement to be considered non-compliant and be rejected by the City of Tulsa.

SBE – 3BID



CHANGE REQUEST
FOR SMALL BUSINESS ENTERPRISE (SBE) PARTICIPATION

Project Name: _____

Project Number: _____

Prime Contractor: _____

CHANGE: From / To (fill in both sides)
FROM:

OR

ADD: To (fill in this side only)
TO:

Name: _____

Name: _____

City of Tulsa SBE: ☐ Yes ☐ No

City of Tulsa SBE: ☐ Yes ☐ No

City of Tulsa SBE Certificate Number: _____

City of Tulsa SBE Certificate Number: _____

Other SBE Certificate Number(s): _____

Other SBE Certificate Number(s): _____

Change in service to be performed: _____

Change in amount of participation by City of Tulsa SBE: \$ _____

Reason for Change: _____

NOTE: Attach a copy of the Letter of Intent for the original City of Tulsa SBE and a new Letter of Intent for the proposed City of Tulsa SBE.

PRIME CONTRACTOR

SBE SUBCONTRACTOR

Signature: _____

Signature: _____

Date: _____

Date: _____

Title: _____

Title: _____

Approved / Disapproved: _____ Date: _____

Engineering Services, Manager
(Planning, Design, or Field)

Approved / Disapproved: _____ Date: _____

Engineering Services / Contract Admin.

Distribution: Tulsa Authority for Economic Opportunity
Engineering Services Department Division (Planning, Design, or Field)



CITY OF TULSA
SMALL BUSINESS ENTERPRISE (SBE) UTILIZATION

Project No.	Contractor	
Project Name		

Name	Business Category	Projected Dollars	Actual Dollars

Projected Contract % _____ Actual Contract % _____ Total _____

PROJECTED: _____ **ACTUAL (Update and Submit with Final Payment):** _____

Contractor Representative _____ Contractor Representative _____

Date _____ Date _____

NOTE: REFER TO UTILIZATION INSTRUCTIONS

SBE – 5BID

(Must be submitted at time of Bid)
CITY OF TULSA
RESOLUTION NO. 7404
AFFIDAVIT OF COMPLIANCE

_____, of lawful age, being first duly sworn, states that s(he) is the authorized agent of the Company set forth below.

Affiant further states that the Company, in compliance with City of Tulsa Resolution No. 7404, shall not hire or knowingly allow any of its subcontractors or lower tier subcontractors to hire anyone who is not a United States citizen or legal immigrant or anyone who does not have legal status as a temporary worker to perform work on any project which is the subject of a contract between the Company and the City of Tulsa.

Affiant further states that the Company shall not fail to comply with and shall not knowingly allow any of its subcontractors or lower tier subcontractors to fail to comply with all applicable laws including, but not limited to, labor, employment and taxation laws, in the performance of any work on any project which is the subject of a contract between the Company and the City of Tulsa.

Affiant further states that the Company shall make available to the City of Tulsa, at the City's request, sufficient information and/or affirmations to allow the City to confirm Company's compliance with Resolution No. 7404 relating to the performance of any contract between the Company and the City of Tulsa.

Company: _____

Signed: _____

Title

SUBSCRIBED and SWORN to before me, this ____ day of _____, 20__.

NOTARY PUBLIC

MY COMMISSION EXPIRES:

COMMISSION NO.:

Resolution No. 7404
RAC-1

(Must be submitted at time of Bid)
CITY OF TULSA
50% RESIDENT RESOLUTION
AFFIDAVIT FOR BID

STATE OF)
) ss:
COUNTY OF)

_____, of lawful age, being first duly sworn, states that s(he) is the agent authorized by the bidder to submit the attached bid. Affiant further states that the bidder, in compliance with City of Tulsa Resolution No. 18145, is committed to the goal of employing at least 50% bona fide residents of the City of Tulsa and/or the Metropolitan Statistical Area (composed of Creek, Okmulgee, Osage, Pawnee, Rogers, Tulsa, and Wagoner counties).

Affiant further states that bidder is responsible for having like requirements placed upon any of its subcontractors.

BIDDER (Company Name)

SIGNED

Title

SUBSCRIBED and SWORN to before me this ____ day of _____, 20____.

NOTARY PUBLIC

MY COMMISSION EXPIRES:

COMMISSION NO.:

(Must be submitted at time of bid)
NON-COLLUSION AFFIDAVIT

STATE OF _____)
COUNTY OF _____) ss:
_____)

_____, of lawful age, being first duly sworn, says that:

1. I am the duly authorized agent of the bidder submitting the competitive bid associated with this sworn statement for the purpose of certifying facts pertaining to the existence of collusion among bidders and between bidders and municipal officers or employees, as well as facts pertaining to the giving or offering of things of value to governmental personnel in return for special consideration in the letting of any contract pursuant to the bid;
2. I am fully aware of the facts and circumstances surrounding the making of the bid and have been personally and directly involved in the proceedings leading to the submission of such bid;
3. Neither the bidder nor anyone subject to the bidder's direction or control has been a party:
 - a. to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding;
 - b. to any collusion with any municipal official or employee as to quantity, quality or price in the prospective contract, or as to any other terms of such prospective contract; nor
 - c. in any discussions between bidders and any municipal official concerning exchange of money or other things of value for special consideration in the letting of a contract.
4. If awarded the contract, neither the bidder nor anyone subject to the bidder's direction or control has paid, given or donated or agreed to pay, give or donate to any officer or employee of the City of Tulsa or of any public trust where the City of Tulsa is a beneficiary, any money or other thing of value, either directly or indirectly, in procuring the contract for which the bid is submitted.

BIDDER (Company Name)

Signed

Title

SUBSCRIBED and SWORN to before me this _____ day of _____, 20____.

NOTARY PUBLIC

MY COMMISSION EXPIRES:

_____, _____.
COMMISSION NO.:

(Must be submitted at time of bid)
BUSINESS RELATIONSHIP AFFIDAVIT

STATE OF)
) ss:
 COUNTY OF)

_____, of lawful age, being first duly sworn, says that s(he) is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any partnership, joint venture or other business relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

(If none of the business relationships herein above mentioned exist, affiant should so state.)

Signed: _____

 BIDDER (Company Name)

 Title:

SUBSCRIBED and SWORN to before me this _____ day of _____, 20__.

 NOTARY PUBLIC

MY COMMISSION EXPIRES:

_____, _____

COMMISSION NO.:

INTEREST AFFIDAVIT

STATE OF _____)
)ss.
COUNTY OF _____)

I, _____, of lawful age, being first duly sworn, state that I am the agent authorized by Contractor, Engineer, Architect or provider of professional service ["Services Provider"] to submit the attached Agreement. Affiant further states that no officer or employee of the City of Tulsa either directly or indirectly owns a five percent (5%) interest or more in the Services Provider's business or such a percentage that constitutes a controlling interest. Affiant further states that the following officers and/or employees of the City of Tulsa own an interest in the Services Provider's business which is less than a controlling interest, either direct or indirect.

By _____
Signature

Title _____

Subscribed and sworn to before me this _____ day of _____, 20__.

Notary Public

My Commission Expires: _____

Notary Commission Number: _____

County & State Where Notarized: _____

The Affidavit must be signed by an authorized agent and notarized.

ELECTRONIC BID PROPOSAL INSTRUCTIONS - EXCEL SPREADSHEET
PROJECT NO. SP 22-02
2022 TAO GARAGE REPAIRS

Please read the following instructions carefully.

1. After opening this file re-save it as your company's name.
2. Open the BID FORM Sheet from the tabs below.
3. Input the unit price of the appropriate pay item in the cells highlighted in blue.
4. Review all data input and check calculations to ensure accuracy of Bid.
5. Print 1hardcopy of the "PROPOSAL" tab, BID FORM and the "SIGNATURE PAGE" tab.
6. Complete and sign the "Signature Page" document.
6. Submit hardcopy and electronic disk with Contract Documents and Specifications for Bid opening date.

LEGEND

\$	1.00	Cells Requiring Data Input.
\$	1.00	Internal Data Transfer.
\$	2.00	Calculated Results.

AGREEMENT FOR USING ELECTRONIC BID PROPOSAL

By and Between: Wallace Design Collective, PC, (ENGINEER) and RECIPIENT. The enclosed electronic media is provided pursuant to your request and is for your limited use in connection with your submittal of Bid Proposal for Project No. SP 22-02, 2022 TAO GARAGE REPAIRS. In no event shall the information be used for any other purpose or be released to third parties without the written consent of the ENGINEER. In the event of a discrepancy between the hard copy and this electronic media at delivery or in the future, the hard copy shall govern. ENGINEER hereby disclaims any and all liability for the consequences from use of the electronic media and makes no warranty or guarantee of accuracy. RECIPIENT shall assume full responsibility for the uses and consequences of the electronic media. It is agreed that ENGINEER has and retains ownership of the electronic media. ENGINEER does not warrant or guarantee that the electronic data is compatible with RECIPIENT'S computer hardware or software, and ENGINEER'S responsibility for the electronic media is limited to replacement of defective media for a period of thirty (30) days after delivery to RECIPIENT. !!! By opening and using this FILE, You AGREE to these TERMS AND CONDITIONS!!!

**PROPOSAL
PROJECT NO. SP 22-02
2022 TAE0 GARAGE REPAIRS**

TO: HONORABLE MAYOR
CITY OF TULSA, OKLAHOMA

THE UNDERSIGNED BIDDER, having carefully examined the drawings, specifications, and other Contract Documents of the above project presently on file in the City Clerk, City of Tulsa Oklahoma:

CERTIFIES THAT he has inspected the site of the proposed work and has full knowledge of the extent and character of the work involved, construction difficulties that may be encountered, and materials necessary for construction, class and type of excavation, and all other factors affecting or which may be affected by the specified work; and

CERTIFIES THAT he has not entered into collusion with any other bidder or prospective bidder relative to the project and/or bid: and

HEREBY PROPOSES: to enter into a contract to provide all necessary labor, materials, equipment and tools to completely construct and finish all the work required by the Contract Documents referred to therein; to complete said work within 160 calendar days (**190** days for base bid plus alternatives #1 and #2) after the work order is issued; and to accept in full payment therefore the amount set forth below for all work actually performed as computed by the Engineers as set forth in the Contract.

Basis of Award

IT SHOULD BE NOTED THAT THE LOWEST RESPONSIBLE BID SHALL BE DETERMINED BY THE TOTAL BASE BID PLUS ADDITIVE ALTERNATES NO. 1 AND 2. THE ITEMS IN ADDITIVE ALTERNATES NO. 1 AND 2 MAY OR MAY NOT BE INCLUDED IN THE CONTRACT AWARD AT THE SOLE DISCRETION OF THE CITY OF TULSA. ANY PROPOSAL SUBMITTED WITH THE ADDITIVE ALTERNATE 1 AND 2 INCOMPLETE SHALL BE CONSIDERED NON-RESPONSIVE

Note: - Pay Item numbers omitted are not a part of the Contract.

SP22-02 TAO GARAGE REPAIR (2022)									
SCHEDULE OF PAY QUANTITIES - BASE BID									
PAY ITEM NUMBER	REFERENCE (DETAIL/ SHEET # OR NOTE/ SHEET #)	UNITS	PAY ITEM DESCRIPTION	MPP	WCN	WCS	BASE BID QUANTITY	UNIT COST	TOTAL COST
1a	DETAIL 1a/13	LF	ROUTE AND SEAL	10	0	1,770	1,780	\$ -	\$ -
1b	DETAIL 1b/13	LF	FILL CRACKS / JOINTS WITH CRACK FILLER FOR SLAB ON GRADE	0	0	10	10	\$ -	\$ -
2a	NOTE D/4	LF	EPOXY INJECTION - TYPICAL AT BEAMS, COLUMNS, SLAB, WALLS	1,016	0	690	1,706	\$ -	\$ -
2b	NOTE L/4	LF	EPOXY INJECTION - EXT. WALL W/ PAINT OR COATING ON EXT.	0	0	520	520	\$ -	\$ -
3b	DETAIL 3b/13	SF	STRUCTURAL SLAB - PARTIAL DEPTH PATCH	2,318	0	328	2,646	\$ -	\$ -
3d	DETAIL 3d/13, NOTE C/4	SF	STRUCTURAL SLAB - FULL DEPTH REPAIR	183	0	0	183	\$ -	\$ -
3e	DETAIL 3e/14	SF	SLAB-ON-GRADE - PARTIAL DEPTH PATCH	1,535	0	19	1,554	\$ -	\$ -
3g	DETAIL 3g/14	SF	CURB NOSE REPAIR	2	0	0	2	\$ -	\$ -
3j	DETAIL 3b/13, NOTE M/4	SF	STRUCTURAL SLAB - PARTIAL DEPTH PATCH	233	0	0	233	\$ -	\$ -
4	DETAIL 4/15	SF	VERTICAL SURFACE / WALL / COLUMN PATCH - PARTIAL DEPTH	58	0	27	85	\$ -	\$ -
5a	DETAIL 5a/15	SF	OVERHEAD PATCH - BOTTOM OF SLAB	139	0	200	339	\$ -	\$ -
5b	DETAIL 5b/15	SF	OVERHEAD PATCH - BEAM SIDE, SLAB EDGE	22	0	8	30	\$ -	\$ -
5e	DETAIL 5e/15	SF	OVERHEAD PATCH - RIB	0	0	8	8	\$ -	\$ -
5g	NOTE 10/10 DETAIL 5a/15	SF	OVERHEAD PATCH - BOTTOM OF SLAB - MEGAMIX II - XYPEX	0	0	61	61	\$ -	\$ -
5h	NOTE 11/10	SF	OVERHEAD PARGE COAT - MEGAMIX I - XYPEX	0	0	95	95	\$ -	\$ -
18	NOTE 4/7	LF	REMOVE EXISTING INJECTION PORTS AND SURFACE SEAL	15	0	0	15	\$ -	\$ -
20b	REPAIR NOTE I/4	SF	ELASTOMERIC DECK COATING - REPAIR EXISTING	100	0	274	374	\$ -	\$ -
29	DETAIL 29/17	EA	LEVEL M TENDON REPAIR (REPAIR INCLUDES (2) TENDONS)	1	0	0	1	\$ -	\$ -
30	DETAIL 30a, 30b, 30c/16	EA	BEAM REPAIR AND NEW CORBEL (WCS)	0	1	0	1	\$ -	\$ -
31	DETAIL 31/16	LF	SPLICE DETAIL *	30	0	30	60	\$ -	\$ -
33	NOTE N/4	EA	INSTALL CRACK MONITORS	0	0	4	4	\$ -	\$ -
34	NOTE K/4	SF	WALL TEST AREA - CURTAIN INJECTION	0	0	300	300	\$ -	\$ -
35	NOTE L/4 AND NOTE 1/11 & 3/11	LF	OVERHEAD LEAK INJECTION AT CONTROL JOINTS	0	0	217	217	\$ -	\$ -
36	DETAIL 36/14	EA	WALL TEST AREA - PRESSURE RELIEF DRAINS	0	0	5	5	\$ -	\$ -
40	SPEC 012100	ALLOW	OWNER'S ALLOWANCE	--	--	--	1	\$ 50,000.00	\$ 50,000.00
41	NOTE 18/SHT. 3	EA	PORTABLE DUST CONTAINMENT BARRIERS REQ'D WITHIN 20 FEET OF CARS	--	--	--	1	\$ -	\$ -
TOTAL BASE BID									\$ 50,000.00

SCHEDULE OF PAY QUANTITIES - ADDITIVE ALTERNATES									
PAY ITEM NUMBER	REFERENCE (DETAIL/ SHEET # OR NOTE/ SHEET #)	UNIT	PAY ITEM DESCRIPTION	MPP	WCN	WCS	ADD ALT BID QUANTITY	UNIT COST	TOTAL COST
ADD ALT #1	MAIN PARK PLAZA		ADDITIVE ALTERNATE (#1) FOR MPP						
A32	DETAIL 32/18	EA	SLAB REPAIR AT PT ANCHORAGE ZONE *	45			45	\$ -	\$ -
ADD ALT #2	WILLIAMS CENTER SOUTH		ADDITIVE ALTERNATE (#2) FOR WCS						
A20b	REPAIR NOTE I/4	SF	ELASTOMERIC DECK COATING - REPAIR EXISTING			4950	4950	\$ -	\$ -
TOTAL ADDITIVE ALTERNATES (#1 AND #2)									\$ -

TOTAL BASE BID PLUS ADDITIVE ALTERNATES (#1 AND #2)									\$ 50,000.00
---	--	--	--	--	--	--	--	--	--------------

SUBTOTAL BASE BID
ADDITIVE ALTERNATE #1
ADDITIVE ALTERNATE #2

\$ 50,000.00
\$ -
\$ -

TOTAL BASE BID PLUS ADDITIVE ALTERNATE #1 AND #2

\$50,000.00

Enclosed is a () Bidder's Surety Bond, () Certified Check, () Cashier's Check for

_____ %

which the City of Tulsa may retain or recover as liquidated damages in the event that the undersigned fails to enter into contract for the work covered by this proposal., provided the Contract is awarded to the undersigned within thirty (30) days, or within ninety (90) days if Federal funds are utilized, from the date fixed for opening of bids and the undersigned fails to execute said Contract and furnish the required bonds and other requirements as called for in these Contract Documents within thirty (30) days after award of Contract.

Dated at Tulsa, Oklahoma, this _____ day of _____, 20__.

Respectfully submitted,

(Complete legal name of company)

(State of Organization)

By:

ATTEST:

Title:

Title: Corporate Secretary

Printed Name:

Printed Name:

(SEAL)

Address: _____

Telephone Number: _____

Fax Number: _____

By signing above bidder acknowledges receipt of the following Addenda (give number and date of each):

Certificate of Secretary

The undersigned _____ (Assistant) Secretary of _____, a _____ corporation, (the "Corporation") hereby certifies that the following is a true and correct copy of a Resolution duly adopted by the Board of Directors of the Corporation on the _____ day of _____, 20__.

RESOLVED, that _____ is authorized to execute and enter into bids, contracts, bonds, affidavits and any ancillary documents, on behalf of the Corporation.

The undersigned further certifies that this Resolution is in full force and effect as of the date of this Certificate and has not been amended, modified, revoked or rescinded.

IN WITNESS WHEREOF, I have executed this Certificate this _____ day of _____, 20__.

(Signature)

Printed Name

(Assistant) Secretary

[SAMPLE CONSENT OF MEMBERS]

[NAME OF COMPANY], LLC

Consent of Members

The undersigned, being all of the Members of [Name of Company], LLC, an Oklahoma Limited Liability Company, hereby authorize, consent to, approve and ratify the execution by _____ on behalf of [Name of Company], LLC of bid proposals, contracts, affidavits and related documents in connection with [Name of Project] of the City of Tulsa.

DATED, this _____ day of _____, 20____.

Name printed: _____

Name Printed: _____

[ADD ADDITIONAL LINES FOR ADDITIONAL MEMBERS]

Disclaimer Statement: This form is made available for example purposes only and is not intended to be legal advice nor intended to be relied upon in lieu of consultation with an attorney."

CM-1

Date

Contractor

**RE: Tulsa Authority for Economic Opportunity Project No. SP 22-02
Parking Garage Repairs 2022 TAEO**

TO WHOM IT MAY CONCERN:

The vendor of materials and supplies under the above referenced contract is hereby authorized to invoice the Tulsa Authority for Economic Opportunity (TAEO), 2317 South Jackson Avenue, Tulsa, Oklahoma 74107, for all materials and supplies purchased under the above contract, noting any contract discount and omitting all sales taxes. All invoices shall include the contract number and the name of the contractor ordering the materials or supplies.

Upon receipt the Tulsa Authority for Economic Opportunity will pay the invoice, in accordance with its terms and conditions, as money is due the Contractor.

This letter of authorization expires .

CITY OF TULSA

Paul D. Zachary, P.E.,
City Engineer

cc: Ryan McKaskle

HAS:AT:at

STED-1

EXTENSION OF TIME REQUEST
(to be submitted with each partial payment application)

DATE: _____

CONTRACTOR: _____

ADDRESS: _____

CONTRACT NO.: _____

PROJECT NO.: _____

DESCRIPTION: _____

ARE THERE ANY CHANGES TO YOUR SBE UTILIZATION? _____ YES _____ NO

IF YES, GIVE REASON AND ATTACH CHANGE REQUEST FORM (SBE-4): _____

EXTENSION OF CONTRACT TIME REQUIRED: _____ YES _____ NO

TOTAL OF EXTENSION TIME REQUESTED: _____

IF YES GIVE REASON: _____

SIGNATURE - CONTRACTOR

CONSULTING ENGINEER OR DEPARTMENT OF PUBLIC WORKS STAFF RECOMMENDATIONS

APPROVED: _____ REJECTED: _____

REASON: _____

SIGNATURE

DATE

ACTION WILL BE TAKEN WITHIN 30 DAYS FROM RECEIPT OF REQUEST

ETR-1

CONTRACT FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS

TULSA, OKLAHOMA

THIS CONTRACT made and entered into this _____ day of _____, 2022, by and between __, an (list state)_____ (Corporation or Limited Liability Company) of __, Oklahoma hereinafter called the "CONTRACTOR", and the TULSA AUTHORITY FOR ECONOMIC OPPORTUNITY, Tulsa, Oklahoma, a Public Trust, herein called the "Authority".

WITNESSETH:

WHEREAS, the Authority has caused to be prepared the necessary Drawings, Specifications, and other Contract Documents for the public improvements herein described, and has invited bids for the construction thereof in accordance with the terms of the Contract, all of which is hereby designated as:

PROJECT NO. SP 22-02 2022 PARKING GARAGE REPAIRS TULSA AUTHORITY FOR ECONOMIC OPPORTUNITY

WHEREAS, the Contractor, in response to the Advertisement, has submitted to the Authority, in the manner and at the time specified, a sealed bid in accordance with the terms of this Contract; and,

WHEREAS, the Authority, in the manner prescribed by law, has publicly opened, examined, and canvassed the bids submitted, and has determined the above named Contractor to be the lowest responsible bidder for the work and has duly awarded to the said Contractor therefore, for the sum or sums named in the Contractor's bid, a copy of the Bid Form being attached to and made a part of this Contract;

NOW, THEREFORE, in consideration of the compensation to be paid to the Contractor and of the mutual agreements and covenants herein contained, the parties to this Contract have agreed and hereby agree, as follows:

ARTICLE I. That the contractor shall (a) furnish all tools, equipment, supplies, superintendence, transportation, and other construction accessories, services, and facilities; (b) furnish all materials, supplies, and equipment specified and required to be incorporated in and form a permanent part of the completed work; (c) provide and perform all necessary labor; and (d) in a good, substantial, and workmanlike manner and in accordance with the requirements, stipulations, provisions and conditions of the Contract as defined in the attached General Conditions, said documents forming the Contract and being as fully a part thereof as if repeated verbatim herein, perform, execute, construct, and complete all work included in and covered by the Authority's official award of this Contract to the said Contractor, such award being based on the acceptance by the Authority of the Contractor's bid, or part thereof, as follows:

PROJECT NO. SP 22-02 2022 PARKING GARAGE REPAIRS TULSA AUTHORITY FOR ECONOMIC OPPORTUNITY

ARTICLE II. That the Authority shall pay to the Contractor for performance of the work embraced in this Contract, and the Contractor will accept as full compensation therefor, the sum (subject to adjustment as provided by the Contract) of AND /100 Dollars (\$_____) for all work covered by and included in the Contract award and designated in the foregoing Article I; payments therefore to be made in cash or its equivalent, in the manner provided in the General Conditions.

ARTICLE IIA. All materials and supplies to be purchased under the terms of this contract shall be ordered by the Contractor from the vendor or supplier who shall be directed to invoice the Tulsa Authority for Economic Opportunity direct. The invoice shall reflect any contractor discount and no sales tax shall be added. The invoice will be paid direct by the Tulsa Authority for Economic Opportunity in accordance with the terms and conditions of the invoice (Oklahoma Tax Commission Rules Part 27 Trust Authority 710:65-13-140). The monies paid direct by Tulsa Authority for Economic Opportunity to the vendor or supplier shall be deducted from the total contract price. The Contractor shall accept delivery and be responsible for and shall warrant and hold the Authority harmless for the safety and security of all of the materials and supplies furnished for the project under this contract.

ARTICLE III. That the Contractor shall start work within ten (10) days following the date stipulated in a written order from the Authority to proceed with the work to be performed hereunder, and shall complete the work within the number of consecutive calendar days after the authorized starting date, as stipulated below:

All Work Completed: ____ calendar days

ARTICLE IV. The sworn, notarized statement below shall be signed and notarized before this Contract will become effective.

ARTICLE V. Prior to submitting a final payment request, the Contractor shall furnish a lien waiver certifying that all subcontractors and suppliers have been paid.

IN WITNESS WHEREOF, the Authority and the Contractor hereto have set their hands and seals, respectively, this _____ day of _____, 2022.

APPROVED AS TO SUBSTANCE:

City Engineer Date: _____

TULSA AUTHORITY FOR ECONOMIC OPPORTUNITY, A PUBLIC TRUST

By:

Chairman Date: _____

ATTEST:

Secretary Date: _____

APPROVED AS TO FORM:

Attorney for the Trust Date: _____

CONTRACTOR

By: _____

Print Name: _____

Title Date: _____ Title Date: _____

ATTEST:

Corporate Secretary

(SEAL)

AFFIDAVIT

STATE OF _____)
)ss
COUNTY OF _____)

_____, of lawful age, being first duly sworn, on oath that
(s)he is the agent authorized by the Contractor to submit the above Contract to the Tulsa
Authority for Economic Opportunity, Tulsa, Oklahoma.

Signature

SUBSCRIBED AND SWORN to before me this _____ day of _____ 2022.

NOTARY PUBLIC

My Commission Expires:

_____, _____.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That we, the undersigned,
 _____, (hereinafter called the "Contractor"),
 duly authorized by law to do business as a construction contractor in the State of
 Oklahoma, and _____
 (hereinafter called the "Surety"), a corporation organized under the laws of the State of
 _____, and authorized to transact business in the State of
 Oklahoma, as Surety, are hereby held and firmly bound unto the Tulsa Authority for
 Economic Opportunity, Tulsa, Oklahoma (hereinafter called the "Authority"), in the
 penal sum of Dollars **(full amount of the Contract), (\$00)** lawful money of the United
 States, for the payment of which, well and truly to be made unto the said Authority, we
 bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly
 and severally, firmly by these presents, as follows:

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH THAT, WHEREAS, the
 Contractor has on the _____ day of _____, 20____, entered into a written
 contract with the Tulsa Authority for Economic Opportunity, Tulsa, Oklahoma, for
 furnishing all materials, labor, tools, equipment, and transportation necessary for:

PROJECT NO. SP 22-02 2022 PARKING GARAGE REPAIRS
TULSA AUTHORITY FOR ECONOMIC OPPORTUNITY

NOW, THEREFORE, if said Contractor shall well and truly perform and complete said
 project in accordance with said Contract, Advertisement for Bids, General Conditions,
 Instructions to Bidders, Bid Form, Plans and Specifications, and related documents, shall
 comply with all the requirements of the laws of the State of Oklahoma; shall pay as they
 become due all just claims for work or labor performed and materials furnished in
 connection with said contract, and shall defend, indemnify and save harmless said
 Authority against any and all liens, encumbrances, damages, claims, demands,
 expenses, costs and charges of every kind, including patent infringement claims except
 as otherwise provided in said specifications and other contract documents, arising out of
 or in relation to the performance of said work and the provisions of said Contract, then
 these presents shall be void; otherwise, they shall remain in full force and effect.

This obligation is made for the use of said Authority and also for the use and benefit of all
 persons who may perform work or labor, or furnish any material in the execution of said
 Contract, and may be sued on thereby in the name of the Authority.

The Surety, for value received, hereby stipulates and agrees that no change, extension of
 time, alteration or addition to the terms of the Contract, or to the work to be performed
 thereunder, or the specifications accompanying same, shall in any way affect its
 obligation on this bond; and it does hereby waive notice of any such change, extension of
 time, alteration or addition of the terms of the Contract, or to the work or to the
 specifications.

IN WITNESS WHEREOF, the said Principal has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its duly authorized officers, and the said Surety has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its attorney-in-fact, duly authorized so to do, the day and year first above written.

CONTRACTOR (Principal)

BY:

ATTEST: (S E A L)

Date: _____

Title: _____ Title: _____

Date: _____

Attorney-In-Fact Surety (S E A L)

** This date shall match the date of the notarized certificate on the Power of Attorney

(Accompany this Bond with Power-Of-Attorney)

APPROVED AS TO FORM:

Date: _____

Attorney for the
Tulsa Authority for Economic Opportunity

APPROVED AS TO FORM:

Date: _____

City Attorney

Date: _____

City Clerk

STATUTORY BOND

WHEREAS, the undersigned _____
has entered into a certain contract dated the _____ day of _____, 20____,

designated as **Project No. SP 22-02**, for the construction of certain public improvements consisting of **2022 PARKING GARAGE REPAIRS TULSA AUTHORITY FOR ECONOMIC OPPORTUNITY** to be situated and constructed on and through the property described in said Contract, including all of the work mentioned and described in said Contract, and to be performed by the undersigned strictly and punctually in accordance with the terms, conditions, drawings and specifications thereof, on file in the office of the Tulsa Authority for Economic Opportunity.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS: That _____, as Principal, and _____, a Corporation organized under the laws of the State of _____, and authorized to transact business in the State of Oklahoma, as Surety, are held and firmly bound unto the State of Oklahoma in the penal sum of _____

_____ Dollars (Full Amount of Contract) (\$_____), lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our successors, and assigns, jointly and severally firmly by these presents.

NOW, THEREFORE, if the said Principal shall fail or neglect to pay all indebtedness incurred by Principal or sub-contractors of said principal who perform work in the performance of such contract, for labor and materials and repairs to and parts for equipment used and consumed in the performance of said contract within thirty (30) days after the same becomes due and payable, the person, firm or corporation entitled thereto may sue and recover on this bond the amount so due and unpaid.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the contract or to the specifications.

5/30/06

IN WITNESS WHEREOF, the said Principal has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its duly authorized officers, and the said Surety has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its attorney-in-fact, duly authorized so to do, the day and year first above written.

CONTRACTOR(Principal)

BY:

ATTEST: (S E A L)

Date: _____ Title: _____

Date: _____ Attorney-In-Fact _____

Date: _____ Surety (S E A L) _____

** This date shall match the date of the notarized certificate on the Power of Attorney

(Accompany this Bond with Power-Of-Attorney)

APPROVED AS TO FORM:

Date: _____
Attorney for the Tulsa Authority
for Economic Opportunity

APPROVED AS TO FORM:

Date: _____
City Attorney

Date: _____
City Clerk

11/18/05

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That _____, as Principal,
and _____, a corporation organized
under the laws of the State of _____ and authorized to transact business in
the State of Oklahoma, as Surety, are held and firmly bound unto the Tulsa Authority for
Economic Opportunity in the Penal Sum of _____

_____ Dollars (full amount of Contract) (\$ _____) in lawful money of the
United States of America for the payment of which, well and truly to be made, we bind
ourselves and each of us, our heirs executors, administrators, trustees, successors, and
assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such that:

WHEREAS, said Principal entered into a written contract with the Tulsa Authority for
Economic Opportunity dated _____, 20____, for

PROJECT NO. SP 22-02 2022 PARKING GARAGE REPAIRS
TULSA AUTHORITY FOR ECONOMIC OPPORTUNITY

all in compliance with the drawings and specifications therefore, made a part of said
Contract and on file in the office of the Authority, Tulsa, Oklahoma.

NOW, THEREFORE, if said Principal shall pay or cause to be paid to the Tulsa Authority
for Economic Opportunity all damage, loss, and expense which may result by reason of
defective materials and/or workmanship in connection with said work, occurring within a
period of one (1) year for all projects, from and after acceptance of said project by the
Tulsa Authority for Economic Opportunity and if Principal shall pay or cause to be paid all
labor and materials, including the prime contractor and all subcontractors; and if principal
shall save and hold the Tulsa Authority for Economic Opportunity harmless from all
damages, loss, and expense occasioned by or resulting from any failure whatsoever of
said Principal, then this obligation shall be null and void, otherwise to be and remain in full
force and effect.

It is further expressly agreed and understood by the parties hereto that no changes or
alterations in said Contract and no deviations from the plan or mode of procedure herein
fixed shall have the effect of releasing the sureties, or any of them, from the obligation of
this Bond.

MB-1

TAE0

11/18/05

IN WITNESS WHEREOF, the said Principal has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its duly authorized officers, and the said Surety has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its attorney-in-fact, duly authorized so to do, the day and year first above written.

CONTRACTOR(Principal)

BY:

ATTEST: (S E A L)

Date:_____

Date:_____

Title:

Title:

Date:_____

Date:_____

Attorney-In-Fact

**

Surety (S E A L)

** This date shall match the date of the notarized certificate on the Power of Attorney

(Accompany this Bond with Power-Of-Attorney)

APPROVED AS TO FORM:

Date:_____
Attorney for the Tulsa Authority
for Economic Opportunity

APPROVED AS TO FORM:

Date:_____
City Attorney

Date:_____
City Clerk

MB-2

TAE0

AFFIDAVIT OF CLAIMANT

STATE OF _____

COUNTY OF _____

The undersigned, of lawful age, being first duly sworn, on oath says that this contract is true and correct. Affiant further states that the work, services or materials will be completed or supplied in accordance with the contract, plans, specifications, orders or requests furnished the affiant. Affiant further states that (s)he has made no payment directly or indirectly of money or any other thing of value to any elected official, officer or employee of the City of Tulsa or any public trust of which the City is a beneficiary to obtain or procure the contract or purchase order.

By: _____

Signature

Name: _____

Company: _____

Title: _____

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public

My Commission Expires: _____

Notary Commission Number: _____

GENERAL CONDITIONS OF CONTRACT

GC-1. SCOPE:

The Contract stipulations which follow are general in scope and may refer to conditions which will not be encountered in the performance of the work included in this Contract, and which are not applicable thereto. Any requirements, provisions, or other stipulations of these General Conditions which pertain to a nonexistent condition, and are not applicable to the work to be performed hereunder, shall have no meaning in the Contract.

The specifications and drawings are intended to supplement, but not necessarily duplicate each other. Together they constitute one (1) complete set of specifications and drawings, so that any work exhibited in the one and not in the other shall be executed just as if it had been set forth in both, in order that the work shall be completed according to the complete design or designs as decided and determined by the Engineer.

Should anything be omitted from the specifications and drawings which is necessary to a clear understanding of the work, or should it appear various instructions are in conflict, then the Contractor shall request written clarification from the Engineer before proceeding with the construction affected by such omissions or discrepancies.

GC-2. CONTRACT DOCUMENTS:

It is understood and agreed that the Notice to Bidders, Instructions to Bidders, Proposal, Contract, Statutory Bond, Performance Bond, Maintenance Bond, Power of Attorney, Certificates of Insurance, General Conditions, Specifications, Drawings, Addenda and duly authorized Change Orders, together with any and all supplementary drawings furnished by the Engineer as and when required to make clear and to define in greater detail the intent of the contract, drawings, and specifications, other drawings, specifications, and engineering data furnished by the Contractor (when accepted by the Engineer), and instructions furnished by manufacturers of equipment for the installation thereof, are each and all included in this Contract, and the work shall be done in full compliance and accord therewith.

GC-3. DEFINITIONS:

Any word, phrase, or other expression defined in this paragraph and used in these Contract Documents shall have the meaning herein given:

1. "Contract" or "Contract Documents" shall include all of the documents and drawings mentioned in Paragraph GC-2.
2. "Authority" shall mean the Tulsa Authority for Economic Opportunity, Tulsa County, Oklahoma, a Public Trust.

3. "Contractor" shall mean the entity named and designated in the Contract who has entered into this Contract to perform the work covered thereby, and its, his, or their duly authorized agents and other legal representatives.
4. "Engineer" shall mean the Superintendent of Water Plant or Sewer Plant, or the Architect or Engineers who have been designated, appointed, or employed by the Authority and Superintendent of Water Plant or Sewer Plant for this project, or their duly authorized agents; such agents acting within the scope of the particular duties entrusted to them in each case.
5. "Inspector" shall mean the engineering or technical inspector or inspectors duly authorized by the Engineer, limited in each case to the particular duties entrusted to him or them.
6. "Surety" shall mean any entity that executes, as surety, the Contractor's performance bond, maintenance bond, and statutory bond securing the performance of this Contract.
7. "Drawings" shall mean and include all drawings prepared by the Authority as a basis for proposals; all drawings submitted by the successful bidder with his proposal and by the Contractor to the Authority, when and as accepted by the Engineer, and all drawings submitted by the Authority to the Contractor during the progress of the work as provided herein.
8. "Subcontractor" shall mean a person, firm or corporation to whom any portion of this work has been sublet by the Contractor.
9. "Work" shall mean the task to be performed, necessary for the fulfillment of this Contract.
10. "Unit Price" shall mean the cost per specified unit of measurement of work and/or material.
11. "Lump Sum" shall mean the price of an item of work including all things necessary to complete the item as shown on the drawings and specifications. Such an item is not measured in units but is defined by description.

GC-4. MODIFICATIONS AND ALTERATIONS:

In executing the Contract, the Contractor agrees that the Authority shall have the right to make such modifications, changes, and alterations as the Authority may see fit, in the extent or plan of the Work agreed to be done or any part thereof, or in the materials to be used therein, either before or after the beginning of construction thereof, without affecting the validity of the Contract or the liability of the Sureties upon the performance of this Contract or the Statutory Bond.

Where any modification, change, or alteration increases the quantity of Work to be performed, and is within the scope of a fair interpretation thereof, such increase shall be paid for according to the quantity of work actually done, either at Unit Prices included in the Contract, or in the absence of such unit, as extra Work. Modifications and alterations which reduce the quantity of Work to be done shall not constitute a claim for damages or for anticipated profits on Work involved in such reduction.

The Engineer shall determine, on an equitable basis, the amount of credit due the Authority for Work not performed as a result of modifications or alterations authorized hereunder; where the value of the omitted Work is not fixed by Unit Prices in the Contract; allowance to the Contractor for any actual loss incurred in connection with the purchase, delivery, and subsequent disposal of materials and equipment required for use on the Work as actually built; and any other adjustment of the Contract amount where the method to be used in making such adjustment is not clearly defined in the Contract Documents. In this respect, such determination shall be final and binding only when approved by the Superintendent of Water Plant or Sewer Plant.

GC-5. DRAWINGS TO BE FURNISHED BY CONTRACTOR:

The Contractor shall furnish all shop, fabrication, assembly, foundation, and other drawings required by the specifications; drawings of equipment and devices, offered by the Contractor for review by the Engineer shall be in sufficient detail to show adequately the construction and operation thereof; drawings of essential details of any change in design or construction proposed for consideration of the Engineer, by the Contractor in lieu of the design or arrangement required by the Contract or any item of extra work thereunder. The Contractor shall submit to the Engineer, the required number of each copy of such drawing for the Engineer's review. After review by the Engineer, all such drawings shall become a part of the Contract Documents and the work or equipment shown thereby shall be in conformity therewith unless otherwise required by the Authority.

The Engineer's check and acceptance of drawings submitted by the Contractor will be for, and will cover, only general conformity to the plans and specifications and will not constitute a blanket acceptance of all dimensions, quantities, and details of the material or equipment shown; nor shall such acceptance relieve the Contractor of his responsibility for errors contained in such drawings.

GC-6. CONTRACTOR'S BUSINESS ADDRESS:

The business address of the Contractor given in the bid or proposal upon which this Contract is founded is hereby designated as the place to which all notices, letters, and other communications to the Contractor may be mailed or delivered. The delivery at the above named address, or depositing in any mailbox regularly maintained by the Post Office, of any notice, letter, or other communication to the Contractor, shall be deemed sufficient service thereof upon the Contractor and the date of said service shall be the date of such delivery or mailing. Such address may be changed at any time by a written instrument, executed by the Contractor and delivered to the Engineer. Nothing contained herein shall be deemed to preclude or render inoperative the service of any notice, letter, or communication upon the Contractor personally.

GC-7. CONTRACTOR'S RISK AND RESPONSIBILITY:

The performance of the Contract and the Work is at the risk of the Contractor until the final acceptance thereof and payment therefor. The Contractor shall take all responsibility of the Work, and shall bear all losses resulting because of the amount or character of the Work, or because the nature of the land in or on which the Work is done is different from what is assumed or expected, or on account of the weather, floods, fire, windstorm, or other actions of the elements, or any cause or causes, whatsoever, for which the Authority is not responsible. If the Work or any part or parts thereof is destroyed or damaged from any of the aforesaid causes, the Contractor, at his own cost or expense, shall restore the same or remedy the damage.

The Contractor shall, in a good and workmanlike manner, perform all Work and furnish all supplies and materials, machinery, equipment, facilities, and means, except as otherwise expressly specified, necessary or proper to perform and complete all Work required by the Contract within the time herein specified, in accordance with the provisions of these Contract Documents and Drawings of the Work covered by this Contract, and any and all supplemental Drawings. The Contractor shall observe, comply with, and be subject to all terms, conditions, requirements and limitations of the Contract, and shall complete the entire Work to the satisfaction of the Engineer and of the Authority.

GC-8. ASSIGNMENT AND SUBLETTING OF CONTRACT:

The Contractor shall give his personal attention to the fulfillment of this Contract, and shall not let, assign or transfer it or his right, title, or interest in any part thereof, by attorney or otherwise, or sublet any part of the Work to any other person without the prior consent of the Authority in writing.

Should any Subcontractor fail to perform his Work in a satisfactory manner, his subcontract shall be immediately terminated by the Contractor upon notice from the Authority. The Contractor shall be fully responsible to the Authority for the acts and omissions of his Subcontractor and of persons either directly or indirectly employed by his Subcontractor. Nothing contained in these Contract Documents shall create any contractual relation between any Subcontractor and the Authority.

GC-9. CONTRACTOR'S REPRESENTATIVES:

The Contractor shall designate a person on the Work to represent him when absent from the Work site.

GC-10. CONTRACTOR AND HIS EMPLOYEES:

The Contractor shall employ competent foremen, experienced mechanics, and others skilled in the several parts of the Work in this Contract and shall promptly discharge any and all incompetent or otherwise unsatisfactory employees. Contractor's employees directly employed to perform the Work shall not be paid less than the prevailing minimum wage scale.

Necessary sanitary conveniences for the use of employees on the job site, properly secluded from public observation, shall be provided and maintained by the Contractor. The construction and location of the facility and disposal of the contents shall comply with all laws of the City and State, relating to health and sanitation regulations.

GC-11. CONTRACTOR'S RIGHT OF PROTEST:

If the Contractor considers any work demanded of him to be outside the requirements of the Contract, or considers any record or ruling of the Engineers to be unfair, he shall, immediately upon such Work being demanded or such record or ruling being made, ask for written instructions or decisions, whereupon he shall proceed without delay to perform the Work or to conform to the record or ruling, and within ten (10) days after the date of receipt of written instructions or decision, he shall file a written protest with the Engineer, stating clearly and in detail the basis of his objections. Except for such protests and objections made of record in the manner herein specified and within the time stated, the records, rulings, or decisions of the Engineer shall be final and conclusive.

GC-12. INSURANCE AND BONDS:

The Contractor (and any subcontractors) shall carry and keep in force during this Contract, policies of insurance issued by an insurer authorized to transact business in Oklahoma in minimum amounts as set forth below or as required by the laws of the State of Oklahoma. The Contractor shall also furnish an Owner's Protective Policy in the same amounts naming the Tulsa Authority for Economic Opportunity as the assured, issued by the same insurance company as the Contractor's liability coverage and indemnifying the Authority against any and all actions, claims, judgments or demands arising from injuries of any kind and character sustained by any person or persons because of work performed by the Contractor.

General Liability Insurance with a bodily injury and property damage combined single limit of not less than \$1,000,000.00 for each occurrence.

Employer's Liability and Workmen's Compensation in the amounts as required by law.

The Contractor shall provide proof of such coverage:

- (a) By providing Certificate(s) of Insurance prior to the execution of this contract; and
- (b) By submitting updated Certificate(s) of Insurance with each and every subsequent request for payment. The Certificate(s) should show that the policies are current and should be dated within 30 days of the payment request.

The Contractor shall not cause any required insurance policy to be cancelled or permit it to lapse. If the Contractor cancels, allows to lapse, fails to renew or in any way fails to keep any required insurance policy in effect, the Authority will suspend all progress

and/or final payments for the project until the required insurance is obtained. Further, a Contractor who fails to keep required insurance policies in effect may be deemed by the Authority to be in breach of contract, ineligible to bid on future projects, and/or ineligible to engage in any new contracts.

The Contractor shall execute and furnish a Statutory Bond for the protection of laborers, mechanics, and material men in a sum equal to one hundred percent (100%) of the contract price.

The Contractor shall execute and furnish a Performance Bond in a sum equal to one hundred percent (100%) of the contract price.

The Contractor shall execute and furnish a Maintenance Bond in a sum equal to one hundred percent (100%) of the contract price.

Prior to doing blasting, the Contractor shall furnish a Certificate of Insurance, which shall certify that any damage caused by blasting is within the coverage of the Contractor's liability insurance to the full limits thereof.

All bonds and insurance must be executed by a company licensed to do business in the State of Oklahoma, and must be acceptable to the Authority.

GC-13. TIME FOR COMPLETION:

The Work shall commence within ten (10) days from and after the date of a written order from the Authority. The Contractor agrees that the Work shall be performed regularly, diligently, and uninterruptedly at a uniform rate of progress so as to insure completion within the number of days after the day on which the work order is issued. If the Contractor fails to complete all Work within the time specified, then the Contractor agrees to pay the Authority, not as a penalty, but as liquidated damages for such breach of contract, the sum of **Two Thousand Five Hundred Dollars (\$2,500.00)** for each and every calendar day beyond the date on which the work was to be completed. The said amount is fixed and agreed upon because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Authority would sustain in such event. It is expressly understood and agreed that the said time for the completion of the Work described herein is a reasonable time for the completion of the same.

The Contractor shall commence work within twenty-four (24) hours of traffic control devices being established at the project location. If the Contractor fails to commence work within twenty-four (24) hours of traffic control devices being established at the project location, then the Contractor agrees to pay the Authority, not as a penalty, but as liquidated damages the sum of **One Thousand Dollars (\$1000.00)** per lane for each day of failure to commence work after the specified time set forth. The amount is fixed and agreed upon because of the impracticability and extreme difficulty of fixing and ascertaining the actual damage the Authority would sustain in such event.

Within 14 days after Bid Opening and prior to Award of Bid the successful Contractor

will be required to furnish the Engineer with a progress schedule, in a format approved by the Engineer, setting forth in detail the procedure he proposes to follow, and giving the dates on which he expects to start and to complete separate portions of the Work. If at any time, in the opinion of the Engineer, proper progress is not being maintained, such changes shall be made in the schedule of operations, which will satisfy the Engineer that the Work will be completed within the period stated in the proposal. Monthly progress meetings will be conducted to maintain coordination between all project entities.

The Contractor will be required to provide a full-time, onsite English speaking superintendent for this Work for direct contact with Authority and coordination of Subcontractors. A working foreman is not acceptable as a work superintendent. The superintendent shall be required to be present at the Work site whenever the Contractor or Subcontractors are performing Work. The superintendent shall be a representative of the Contractor with the authority to make decisions. If the Contractor fails to provide a non-working superintendent on a day when Work is being performed the Contractor agrees to pay the Authority, not as a penalty, but as liquidated damages for such breach of contract, the sum of **One Thousand Dollars (\$1000.00)** for each and every calendar day it fails to provide a non-working superintendent at the Work site. This amount is fixed and agreed upon because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Authority would sustain in such event.

It is further agreed that time is of the essence as to each and every portion of this Contract and the specifications wherein a definite and certain time is fixed for the performance of any act whatsoever; and where under the Contract an allowance of additional time for completion of any Work is made, the new time fixed by such extension shall be of the essence of this Contract.

Failure to complete the Work within the specified time, as set forth in the Contract, may be grounds for disqualification for future consideration for contracts with the Authority.

Final acceptance of the Work is defined as the completion of the Work and the Contractor moving off the project site. No defined or additional Work is needed.

Contract Evaluation forms will be compiled by Authority staff upon completion of Work to provide a record of the Contractor's performance for use in subsequent projects.

GC-14. EXTENSIONS OF TIME:

Should the Contractor be delayed in the final completion of the Work by any act or neglect of the Authority or Engineer, or any employee of either, or strikes, injunctions, fire, or other causes outside of and beyond the control of the Contractor and which, in the opinion of the Engineer, could have been neither anticipated nor avoided, then an extension of time sufficient to compensate for the delay, as determined by the Engineer, shall be granted by the Authority, provided, however, that the Contractor shall give the Authority and the Engineer notice in writing of the cause of each delay on the "Extension of Time Request" form enclosed in these documents, and agrees that any such claim shall be fully compensated for by an extension of time to complete

performance of the Work.

The Contractor shall submit the "Extension of Time Request" form with each partial payment application. Failure to submit the Extension of Time Request with a partial payment application shall constitute a complete waiver of any claim for time extension for the period covered by the partial payment.

Extensions of time will not be granted for delays caused by unsuitable ground conditions, inadequate construction force, or the failure of the Contractor to place orders for equipment or materials a sufficient time in advance to insure delivery when needed. Any extension of time granted by the Authority shall not release the Contractor and Surety herein from the payment of liquidated damages as provided in the General Conditions of this Contract, for a period of time not included in the original Contract or the time extension, as herein provided.

In no event shall the Authority be liable or responsible to the Contractor, Surety, or any person for or on account of any stoppage or delay of Work herein provided for by injunction or any other kind of legal, equitable proceedings, or from or by or on account of any delay from any other cause whatsoever.

GC-15. ENGINEER'S POWERS AND DUTIES:

The Engineer will provide general administration of the Contract, including performance of the functions hereinafter described.

The Engineer will be the Authority's representative during construction and until final payment. The Engineer will have authority to act on behalf of the Authority to the extent provided herein unless otherwise modified by written instrument, which will be shown to the Contractor. The Engineer will advise and consult with the Authority, and all of the Authority's instructions to the Contractor shall be issued through the Engineer. Nothing contained in the Contract documents shall create any contractual relationship between the Engineer and the Contractor.

The Engineer shall at all times have access to the Work as provided elsewhere herein. The Engineer will make periodic visits to the Work site to familiarize himself generally with the progress and quality of the Work and to determine in general whether the Work is proceeding in accordance with the Contract. On the basis of his on-site observations as Engineer, he will keep the Authority informed of the progress of the Work and will endeavor to guard the Authority against defects and deficiencies in the Work caused by the Contractor. The Engineer will not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract. Based on such observations and the Contractor's applications for payment, the Engineer will determine the amounts owing to the Contractor and will issue certificates for payment in amounts as provided elsewhere herein.

The Engineer may provide one or more full-time project representatives to assist the

Engineer in carrying out his responsibilities at the Work site. The duties, responsibilities and limitations of authority of the Engineer as the Authority's representative during construction as set forth herein will not be modified or extended without written consent of the Authority, the Contractor and the Engineer.

The Engineer will not be responsible for the acts or omissions of the Contractor, any Subcontractors, or any of their agents or employees, or any other persons performing any of the Work.

The Engineer shall decide the meaning and intent of any portion of the specifications, and of any plans or Drawings, where the same are found to be obscure or be in dispute; he shall have the right to correct any errors or omissions therein when such corrections are necessary to further the intent of said specifications, plans or Drawings; the action of such correction shall be effective from the date that the Engineer gives due notice thereof.

Any differences or conflicts which may arise between the Contractor and other contractors with the Authority in regard to their work shall be adjusted as determined by the Engineer.

Neither the Engineer's authority to act under this article or elsewhere in the Contract nor any decision made by the Engineer in good faith either to exercise or not to exercise such authority shall give rise to any duty or responsibility of the Engineer to the Contractor, any Subcontractor, any manufacturer, fabricator, supplier or distributor, or any of their agents or employees or any other person performing any of the Work.

Whenever in the Contract the terms "as ordered", "as directed", "as required", "as allowed", or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper", or "satisfactory" or adjectives of like effect or import are used, to describe requirements, direction, review or judgement of the Engineer as to the Work, it is intended that such requirement, direction, review, or judgement will be solely to evaluate the Work for compliance with the Contract (unless there is a specific statement indicating otherwise). The use of any such term or adjective never indicates that the Engineer shall have authority to supervise or direct performance of the Work or authority to undertake responsibility contrary to the provisions of this General Condition.

GC-16. AUTHORITY'S RIGHT OF INSPECTION:

The Authority shall appoint or employ such engineers or inspectors as the Authority may deem proper to inspect the materials furnished and the work performed, and to determine whether said materials are furnished and work is performed in accordance with the Drawings and specifications therefor. The Contractor shall furnish all reasonable aid and assistance required by the Engineer, or by the Inspectors, for the proper inspection and examination of the Work and all parts thereof, even to the extent of uncovering or taking out portions of finished Work. Should the Work thus exposed or examined prove satisfactory, the uncovering or removing and the replacing of the covering or the making good of the parts removed shall be paid for by the Authority; however should the Work exposed or examined prove unsatisfactory, the uncovering,

taking out, replacing, and making good shall be at the expense of the Contractor.

Such inspection shall not relieve the Contractor of any obligation to perform said Work strictly in accordance with the Drawings and specifications or any modifications thereto as herein provided, and the Work not so constructed shall be removed and made good by the Contractor at his own expense, and free of all expense to the Authority, whenever so ordered by the Engineer, without reference to any previous oversight or error in inspection.

GC-17. SUSPENSION OF WORK ON NOTICE:

The Contractor shall delay or suspend the progress of the Work or any part thereof whenever he shall be so required by written order of the Authority or Engineer, and for such period of time as it or he shall require. Any such order of the Authority or Engineer shall not modify or invalidate in any way the provisions of this Contract.

GC-18. QUALITY OF WORKMANSHIP:

All workmanship shall be the best possible, both as to material and labor, that could be demanded by these Contract Documents, or if no specific description is given, it is understood that the best quality is required.

GC-19. SATURDAY, SUNDAY, HOLIDAY, AND NIGHT WORK:

No work shall be done between the hours of 7:00 p.m. and 7:00 a.m., or on Saturday, Sunday, or legal holidays without the written approval or permission of the Engineer in each case, except such work as may be necessary for the proper care, maintenance, and protection of work already done, or of equipment, or in the case of an emergency. Allowable working times within secured facilities may be adjusted by Engineer as necessary to facilitate established operational shift schedules.

GC-20. LAWS AND ORDINANCES:

The Contractor shall keep himself fully informed of all existing and current regulations of the City, county, state and national laws which in any way limit or control the actions or operations of those engaged upon the Work, or affecting the materials supplied to or by them. The Contractor shall at all times observe and comply with all applicable ordinances, laws, and regulations, and shall protect and indemnify the Authority and the Authority's employees officers and agents against any claims or liability arising from or based on any violations of the same.

The contractor certifies that it and all of its Subcontractors to be used in the performance of the Contract are in compliance with 25 O.S. Sec. 1313 and participate in the Status Verification System. The Status Verification System is defined in 25 O. S. Sec. 1312 and includes but is not limited to the free Employee Verification Program (E-Verify) available at www.dhs.gov/E-Verify.

The Contractor shall take the necessary actions to ensure its facilities are in compliance with the requirements of the Americans With Disabilities Act (ADA). It is understood that the program of the Contractor is not a program or activity of the City of Tulsa. The Contractor agrees that its program or activity will comply with the requirements of the

ADA. Any costs of such compliance will be the responsibility of the Contractor. Under no circumstances will Contractor conduct any activity, which it deems to not be in compliance with the ADA.

GC-21. TAXES AND PERMITS:

Unless otherwise specified in these Contract Documents, the Contractor shall pay all sales, use, and other taxes that are lawfully assessed against the Authority or Contractor in connection with the Work included in this Contract and shall obtain all licenses, permits, and inspections required for the Work. Contractor shall comply with all zoning ordinances of the City, as provided in the Tulsa Zoning Code, Title 42 Tulsa Revised Ordinances and conform with all zoning requirements established by the Tulsa Metropolitan Area Planning Commission and the Board of Adjustment. Contractor can call the Indian Nations Council of Governments (INCOG) at (918) 584-7526, to determine if any zoning requirements must be met.

GC-22. PROTECTION OF PROPERTY:

The protection of City, state, and government monuments, street signs, and other City property is of prime importance, and if the same be damaged, destroyed, or removed, they shall be repaired, replaced, or paid for by the Contractor.

Work occurring within secured facilities will require the Contractor to obtain City of Tulsa issued ID badges for all employees and subcontractors requiring facility gate access. The Contractor will be responsible for all coordination with City Security as necessary to process background checks and issue badges. The City of Tulsa has the right to deny access to any individual based on evaluation of background check.

GC-23. PATENT RIGHTS:

All fees for any patented invention, article, or arrangement that is based upon, or in any manner connected with the construction, erection, or maintenance of the Work or any part thereof embraced in the Contract and these specifications, shall be included in the price stipulated in the Contract for said Work. The Contractor shall protect and hold harmless the Tulsa Authority for Economic Opportunity, against any and all demands of such fees or claims.

GC-24. DEFENSE OF SUITS:

In case any action at law or suit in equity is brought against the Authority or any employee, officer or agent thereof, for or on account of the failure, omission or neglect of the Contractor to do and perform any of the covenants, acts, matters, or things required by this Contract to be done or performed, or for injury or damage caused by negligence or willful act of the Contractor or his Subcontractors or his or their agents, or in connection with any claim or claims based on the lawful demands of Subcontractors, workmen, materialmen, or suppliers of machinery and parts thereof, equipment, power tools, and supplies incurred in the fulfillment of this Contract, the Contractor shall indemnify and save harmless the Authority and its employees, officers and agents, and the Engineer and any employees, officers and agents thereof, of and from all losses, damages, costs, expenses, judgements, or decrees whatsoever arising out of such action or suit that may be brought, without requiring said parties to give any notice

thereof.

The Authority may suspend payments of any sum due or to become due for work done on this Contract until such claims, suits, actions, or proceedings are final and liability has been determined. The amount of such damages or liability shall be deducted from sums due or to become due on this Contract. The sums mentioned above will be retained by the Authority until the Contractor furnishes evidence that satisfactory settlement has been made. Any action taken by the Authority shall not excuse the Contractor for failure to perform this Contract or bar the Authority from legal action to recover from the Contractor the amount of damages or liability suffered in excess of the amount retained.

The Contractor shall furnish the Authority with satisfactory evidence, upon demand, that all persons who have done work on the Contract or furnished materials for the Contract have been paid in full. If such evidence is not furnished, the amount necessary to pay the lawful claims may be retained until such evidence is furnished, or if such evidence is not furnished, the Authority may apply any sums retained to valid claims and charge the amounts disbursed, including the costs of any action that may be necessary to prove or disprove the claims against the Contractor.

GC-25. REMOVAL OF CONDEMNED MATERIALS AND STRUCTURES:

The Contractor shall remove from the site of the Work, without delay, all rejected and condemned materials or structures of any kind brought to or incorporated in the Work, and upon his failure to do so, or to make satisfactory progress in so doing, within forty-eight (48) hours after the service of a written notice from the Engineer ordering such removal, the condemned material or structures may be removed by the Authority and the cost of such removal be taken out of the money that may be due or may become due the Contractor by virtue of this Contract. No such rejected or condemned material shall again be offered for use by the Contractor under this or any other Contract under this project.

GC-26. EXTRA WORK:

If a modification increases the amount of the Work, and the added Work or any part thereof is of a type and character which can properly and fairly be classified under one or more Unit Price items of the Bid Form, then the added Work or part thereof shall be paid for according to the amount actually done and at the applicable Unit Price. Otherwise, such work shall be paid for as hereafter provided.

Claims for extra work will not be paid unless the Work covered by such claims was authorized in writing by the Authority. The Contractor shall not have the right to take action in court to recover for extra work unless the claim is based upon a written order from the Authority. Payments for extra Work will be based on agreed lump sums or on agreed Unit Prices whenever the Authority and the Contractor agree upon such prices before the extra Work is started.

For the purpose of determining whether proposed extra work will be authorized, or for determining the payment method for extra work, the Contractor shall submit to the

Engineer, upon request, a detailed cost estimate for proposed extra work. The estimate shall show itemized quantities and charges for all elements of direct cost.

The cost shall include only those extra costs for labor and materials expended in direct performance of the extra work and may include:

- (a) **Labor.** For all labor and foremen in direct charge of the specific operations, the Contractor shall receive the rate of wage (or scale) agreed upon in writing before beginning work for each and every hour that said labor and foremen are actually engaged in such work. An amount equal to fifteen (15) percent of the sum of the above items will also be paid the Contractor.
- (b) **Bond, Insurance, and Tax.** For property damage, liability, and workmen's compensation insurance premiums, unemployment insurance contributions and social security taxes on the force account work, the Contractor shall receive the actual cost, to which cost no percentage will be added. The Contractor shall furnish satisfactory evidence of the rate or rates paid for such bond, insurance, and tax.
- (c) **Materials.** For materials accepted by the Engineer and used, the Contractor shall receive the actual cost of such materials delivered on the Work site, including transportation charges paid by him (exclusive of machinery rentals as hereinafter set forth), to which cost ten (10) percent will be added.
- (d) **Equipment.** For any machinery or special equipment (other than small tools) including fuel, lubricants and transportation costs, the use of which has been authorized by the Engineer, the Contractor shall receive the rental rates agreed upon in writing before such work is begun for the actual time that such equipment is in operations on the Work, as provided in Subsection 109.01(a), to which rental sum no percentage will be added.
- (e) **Miscellaneous.** No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.

The form on which field cost records are kept, the construction methods and the type and quantity of equipment used shall be submitted to the Engineer for approval.

Construction equipment which the Contractor has on the Work site and which is of a type and size suitable for use in performing the extra Work shall be used. The hourly rental charges for equipment, including all insurance, taxes, fuel, and operating costs, shall not exceed twelve (12) percent of the latest applicable Associated Equipment Distributors published monthly rental rates and shall apply to only the actual time the equipment is used in performing the extra Work.

When extra Work requires the use of equipment, which the Contractor does not have on the work site, the Contractor shall obtain the approval of the Engineer before renting or

otherwise acquiring additional equipment. The rental charges for the additional equipment shall not exceed the latest applicable Associated Equipment Distributors published rental rates.

The Contractor shall file with the Engineer, certified lists in duplicate, of any equipment and the schedule of pay rates for common and semi-skilled labor and operators of various classes which are intended to be used in performing the Work covered by this Contract. These rates shall be subject to the review of the Engineer. This information will be used by the Engineer for computation of extra work as mentioned above, however, if the Contractor fails to file these lists with the Engineer prior to starting any Work covered by this Contract, then the Engineer's computation shall be based on average wages and rates paid on Authority work.

GC-27. PAYMENT FOR CONTRACTOR'S PLANT AND MISCELLANEOUS TEMPORARY WORK:

For providing plant, tools, and equipment, and for furnishing, erecting, maintaining, and removing scaffolding and construction plant, construction roads, camps, sanitary conveniences, temporary water supply, trestles, dewatering and other temporary works, the Contractor shall receive no direct payment, but compensation for them shall be considered as having been included in the prices stipulated for the appropriate items.

GC-28. BASIS OF PAYMENT FOR ITEMS OF WORK:

The Contractor shall be paid for all Work performed under the Contract based on the Engineer's computations of as-built quantities and the Contractor's Unit Price or Lump Sum bid per item. This payment shall be full compensation for furnishing all supplies, materials, tools, equipment, transportation, and labor required to do the Work; for all loss or damage, because of the nature of the work, the action of the elements or any unforeseen obstruction or difficulty which may be encountered in the performance of the Work, and for which payment is not specifically provided; for all expense incurred by or because of any suspension or discontinuance of all or any part of the Work; and for faithfully completing the Contract according to the Drawings and specifications and requirements of the Engineer.

GC-29. PAYMENTS: (1) Partial:

If the work is progressing in good and workmanlike manner and if the Contractor is faithfully carrying out the terms of this Contract, approximate estimates of the work done shall be made by the Engineers between the first and fifteenth of each calendar month, including labor actually performed and supplies or materials actually used or incorporated in the Work, and an allowance will be made for acceptable materials satisfactorily delivered, stored and secured on the site of the Work in such amount as can be incorporated in the Work within a reasonable time. The Authority shall have a lien as owner on any materials stored on the site of the Work.

Each partial estimate for payment shall contain or have attached an affidavit in the form found in this book of specifications, as required by law.

The Contractor shall submit with each partial pay estimate a complete list of vendors

and suppliers with itemized purchases and invoices from each vendor. Each list shall contain the name of the Contractor or Subcontractor ordering the materials or supplies, and the specific use or placement of each of the materials purchased by the Tulsa Authority for Economic Opportunity for this project in accordance with Article IIB of the Contract. At the direction of the Contractor, the Tulsa Authority for Economic Opportunity will withhold retainage in the amount of 5% on materials and supplies to be purchased under the terms of this Contract. If fuels are purchased, they shall be limited to dyed diesel fuel and/or kerosene for non-highway use. No unleaded gasoline will be permitted.

Each month that work is performed for which payment is due, the Contractor shall submit to the Engineer an application for such payment, provided said payment is not less than \$1,000.00, and, if required, receipts or other vouchers from Subcontractors showing his payments to them shall be submitted.

Each estimate shall be of the approximate value of all work performed and materials in place or delivered to the Work site, determined as aforesaid from the beginning of this contract to the date fixed for the current estimate, from which shall be deducted five percent (5%), or a lesser amount approved by the Authority, and, in addition thereto, all previous payments and all other sums withheld under the foregoing provisions of this Contract, the remainder to become due and payable; after the estimate has been reviewed and signed by the Engineer and the Authority, shall pay the estimate in the regular manner in the amount determined as due unless it shall be known by the Authority that there is good reason under the terms of this Contract for withholding same.

The Contractor may withdraw any part or the whole of the amount which has been retained from partial payment to the Contractor pursuant to the terms of Contract, upon depositing with or delivery to the City:

- (1) United States Treasury Bonds, United States Treasury Notes, United States Treasury bills, or
- (2) General Obligation Bonds of the State of Oklahoma, or
- (3) Certificates of Deposit from a state or national bank having its principal office in the State of Oklahoma.

No retained amount shall be withdrawn which would represent an amount in excess of the market value of the securities at the time of deposit or of the par value of such securities, whichever is lower.

All partial estimates are subject to correction in the final estimate.

(2) Final Payment:

When this contract, in the opinion of the Engineer, shall be completely performed on the part of the Contractor, the Engineer shall proceed with all reasonable diligence to

measure up the Work and shall make out the final estimate for the same, and shall, except for cause herein specified, give to the Contractor, within thirty (30) days after receiving said certificate, an order on the Authority for the balance found to be due, excepting therefrom such sum or sums as may be lawfully retained under any of the provisions of the Contract; PROVIDED, that nothing herein contained shall be construed to affect the rights of the Authority hereby reserved to reject the whole or any portion of the aforesaid Work should the said estimate and certificate be found or known to be inconsistent with the terms of this Contract or otherwise improperly given; PROVIDED, that if after the work hereunder has been accepted and final payment made, it shall be discovered that any part of the Contract has not been fully performed or has been done in an improper or faulty manner, the Contractor shall immediately remedy such defect, or, in case of neglect to do so within a reasonable time after notice thereof, shall be liable for and shall pay to the Authority the cost of remedying such defect or a sum equal to the damages sustained thereby, as the Authority shall elect and the acceptance of and final payment for the Work shall be no bar to suit on any bond against any principal or principals, or Surety or Sureties, or both, given for the due performance of the Contract, or for the recovery of such cost or the equivalent of such damage.

The Authority will pay to the Contractor interest at the rate of three-fourths percent (3/4%) per month on the final payment due the Contractor. For lump sum contracts, the interest shall commence thirty (30) days after the Work under the Contract has been completed and accepted and all required material certifications and other documentation required by the Contract have been furnished the Authority by the Contractor, and shall run until the date when the final payment or estimate is tendered to the Contractor. For contracts bid by Unit Prices, the interest will commence sixty (60) days after the above conditions are satisfied. When contract quantities or the final payment amount is in dispute, the interest-bearing period will be suspended until the conclusion and settlement of the dispute.

GC-30. CONTRACTOR REIMBURSEMENT FOR SURETY BOND:

For contracts of \$1,000,000.00 or more, the Contractor may receive reimbursement for the cost of the surety bonds after issuance of a work order. To receive reimbursement, the Contractor shall submit a standard partial payment form and affidavit, and a copy of the surety bond invoice. The final partial pay estimate will be reduced by the amount paid for surety bond reimbursement.

GC-31. RELEASE OF LIABILITY AND ACCEPTANCE:

The acceptance by the Contractor of the final payment shall operate as, and shall be a release to the Authority and every employee, officers and agents thereof, from all claims and liability to the Contractor for anything done or furnished for or relating to the Work, or for any act or neglect of the Authority or of any person relating to or affecting the Work, and, following such acceptance, no person, firm, or corporation other than the signer of this Contract as Contractor, will have any interest hereunder, and no claim shall be made or be valid, and neither the Authority nor any employees or agent thereof shall be liable or be held to pay any money, except as herein provided.

It shall be the duty of the Engineer to determine when the Work is completed and the Contract fulfilled, and to recommend its acceptance by the Authority. The Work herein specified to be performed shall not be considered finally accepted until all the Work has been accepted by the Authority.

GC-32. RIGHT OF AUTHORITY TO TERMINATE CONTRACT:

If the Work to be done under this Contract shall be abandoned by the Contractor, or if this Contract shall be assigned by him otherwise than as herein provided, or if the Contractor should be adjudged bankrupt, or if a general assignment of his assets be made for the benefit of his creditors, or if a receiver should be appointed for the Contractor or any of his property; or if at any time the Engineer shall certify in writing to the Authority that the performance of the Work under this Contract is being unnecessarily delayed, or that the Contractor is executing the same in bad faith or otherwise not in accordance with the terms of the Contract; or if the work be not substantially completed within the time named for its completion, or within the time to which such completion date may be extended; then the Authority may serve written notice upon the Contractor and his Surety of Authority's intention to terminate this Contract, and unless, within five (5) days after service of such notice upon the Contractor, a satisfactory arrangement is made for the continuance of the Contract, this Contract shall cease and terminate. In the event of such termination, the Authority shall immediately serve notice upon the Surety and Contractor, and the Surety shall have the right to take over and complete the Work, provided, however, that if the Surety does not commence performance thereof within fifteen (15) days from the date of said notice of termination, the Authority may take over the Work and perform same to completion, by Contract or otherwise, for the account and at the expense of the Contractor, and the Contractor, and his Surety, shall be liable to the Authority for any and all excess cost sustained by the Authority by reason of such performance and completion. In such event the Authority may take possession of and utilize in completing the Work, all such materials, equipment, tools, and plant as may be on the site of the Work and necessary therefor. The Contractor shall not receive any other payment under the Contract until said Work is wholly finished, at which time, if the unpaid balance of the amount to be paid under the Contract shall exceed the expense incurred by the Authority in finishing the Work as aforesaid, the amount of the excess shall be paid to the Contractor, but if such expense shall exceed the unpaid balance, the Contractor shall pay the difference to the Authority.

GC-33. ADMINISTRATIVE COSTS AND FEES:

Cash Improvements - In the event the improvements are to be paid for in cash: the costs and fees for publication, engineering, filing, recording, abstracting, acquisition of easements, flushings, and pipe testing, shall be paid by the Authority unless otherwise provided for in these Contract Documents.

Assessment Improvements: In the event the improvements are to be paid for by the issuance of special assessment bonds, the costs and fees for publication, engineering, filing, recording, abstracting, acquisition of easements, flushing, pipe testing, and other authorized costs shall be added to the contract price and paid for in the same manner as the other Work included in this Contract. The Contractor shall pay the Authority the

amount of said charges before the execution and delivery of the special assessment bonds or other payments. If the Contractor fails, neglects, or refuses to pay said charges within thirty (30) days after the bonds are ready for delivery, he shall pay the Authority interest at the rate of seven percent (7%) per annum and shall be liable for same in a civil suit. The Contractor shall pay the pipe testing fees directly to the testing laboratory.

GC-34. PAYMENT OR ACCEPTANCE NOT A WAIVER BY AUTHORITY:

Neither acceptance by the Authority or the Engineer or any employee of either nor any order by Authority for the payment of money, or the payment thereof, nor any taking of possession by Authority, nor the granting of any extension of time, shall operate as a waiver of any rights or powers of the Authority hereunder, and in the event that after the Work hereunder has been accepted and final payment made, it should be discovered that any part of this Contract has not been fully performed, or has been done in a faulty or improper manner, the Contractor shall immediately remedy such defect, or in the event of neglect to do so within a reasonable time after notice thereof, shall be liable for and shall pay to Authority the cost of remedying such defect, or a sum equal to the damage caused thereby, as Authority may elect. The acceptance of the Work or final payment therefor shall be no bar to suit against the Contractor or Surety, or both.

GC-35. CONTRACTOR'S OBLIGATION AFTER ACCEPTANCE:

Contractor further agrees, without cost other than is specially provided for in this Contract, at any and all times during one (1) year next following the completion and final acceptance of the Work embraced in this Contract, without notice from Authority, to refill all trenches or ditches that may sink or settle; and to repair all breaks and failures that may occur in the construction work due to defective material or workmanship; and to indemnify, save harmless and defend the Authority from any and all suits and actions of every description brought against Authority for, or on account of injuries or damages alleged to have been received or sustained by any party or parties by reasons of, or arising out of the failure of Contractor to refill all trenches and ditches and to repair all breaks or failures of said construction work, which said injuries or damages are alleged to have been received or incurred within one (1) year from the final acceptance of the Work hereunder, and to pay any and all judgements that might be rendered against Authority in any suits and actions, together with such expenses or attorney's fees expended or incurred by Authority in the defense thereof, and Contractor hereby expressly waives any notice that might by law be required to be given to them by Authority of any defect, break, settling, or failure or of any other condition that might be the cause of injury or damage to any person on account of which a claim or suit might be made or filed against Authority, or a judgement taken for damages against Authority. It is expressly agreed that the acceptance of the Work by Authority shall constitute no bar against any person injured or damaged by the failure of the Contractor to perform all of his covenants and agreements hereunder from maintaining an action against the Contractor, or against Authority from enforcing its rights against the Contractor hereunder.

GC-36. NOTICES:

Any notices or other communications hereunder may be given to Contractor at the

address listed in the Proposal, to the Surety at the office of the Attorney-in-Fact signing the bond or at Surety's home office address on file with the Insurance Commissioner of the State of Oklahoma, and to Authority in care of the City of Tulsa's Director of Public Works, or at such other place as may be designated in writing. The delivery at such address, or depositing in any mailbox regularly maintained by the Post Office, of any notice, letter, or other communication to the Contractor, shall be deemed sufficient service thereof, and the date of said service shall be the date of such delivery or mailing.

GC-37. RELATION TO OTHER CONTRACTORS:

Nothing herein contained and nothing marked upon the Drawings shall be interpreted as giving the Contractor exclusive occupancy of the territory or right-of-way provided. The Authority and its employees, officers, and agents for any just purpose, and other contractors of the Authority for any purpose required by their respective contracts, may enter upon or cross this territory or occupy portions of it or take materials therefrom as directed or permitted. When two or more contracts are being executed at one time on the same or adjacent land in such manner that the work on one contract may interfere with the work on another, the Engineers shall decide which contractor shall cease work and which shall continue, or whether the work on both contracts shall progress at the same time and in what manner. When the territory of one contract is the necessary or convenient means of access for the transportation or movement of men, machines, or appliances for the execution of another contract, such privilege of access or any other reasonable privilege may be granted by the Engineers to the contractor desiring it, to the extent, amount, in the manner and at the time permitted. Any decision regarding the method or time of conducting the work or the use of the territory shall not be made the basis of claims for delay or damage except as otherwise stipulated. The Contractor shall not cause any unnecessary hindrance or delay to any other contractors on the premises, and shall bear all damages done to the work of such other contractors by him or by his employees.

GC-38. PARTIAL OCCUPANCY AND USE:

The Authority, upon advance written notification to the Contractor, shall have the right to occupy and use any completed or partially completed portions of the Work site when such occupancy and use are in the Authority's best interest, notwithstanding completion of the entire project.

Such partial occupancy and use shall be upon the following terms:

- a. The Engineer shall make an inspection of the portion or portions of the Work concerned, and report to the Authority his findings as to the acceptability and completeness of the Work. The Engineer's report shall include a list of items to be completed or corrected before final payment.
- b. The Authority, upon acceptance of the Engineer's report, shall give written notice to the Contractor of the Authority's intention to occupy

and use said portions of the Work site. The Authority's notice shall include a copy of the Engineer's report, shall clearly identify the portions of the Work site to be occupied and used, and shall establish the date of said occupancy and use.

- c. From the date thus established, the Authority shall assume all responsibilities for operation, maintenance, and the furnishing of water, gas, and electrical power for the portions of the Work site thus occupied and used. The Authority shall have the right to exclude the Contractor from those portions of the Work site but shall provide the Contractor reasonable access to complete or correct necessary items of Work.
- d. The one year guarantee required by the General Conditions shall not begin until completion and final acceptance of the entire project. If, before final acceptance, the Contractor completes any mechanical or electrical equipment such as pumps, blowers, process equipment, instrumentation, controls, metering equipment, heating, and ventilation equipment and similar items having movable or operable components, the Contractor may then request partial acceptance of each completed equipment system. In response, the Engineer will perform a final inspection of each system and determine if all specifications are satisfied, including but not limited to start-up conditions, performance criteria, control systems, training, and final operation manuals (O & M's). Once found to be complete, ready for operation, and isolated from all remaining work, the Engineer will provide Contractor with written notice of partial acceptance and the start date for the one year guarantee required by the General Conditions.
- e. Occupancy or use of any space in the Work site shall not constitute acceptance of Work not performed in accordance with the Contract, nor relieve the Contractor of liability to perform any Work required by the Contract but not completed at the time of said occupancy and use.
- f. The Contractor shall not be held responsible for normal wear and tear or damage resulting from said occupancy, except to the extent that such damage is covered by the one-year guarantee.
- g. The partial occupancy and use of any portions of the Work site by the Authority shall not constitute grounds for claims by the Contractor for release of any amounts retained from payments under the provisions of the Contract. The retained amounts will not be due until completion of the entire project for final acceptance and final payment, as set forth in the General Conditions.

SPECIAL
PROVISIONS

SPECIAL PROVISION
SUPPLEMENTAL CONTRACT REQUIREMENTS
PROJECT NO. SP 22-02
2022 PARKING GARAGE REPAIRS
TULSA AUTHORITY FOR ECONOMIC OPPORTUNITY

1. Successful Contractor shall return fully executed contract documents (including bonds and insurance) to the City of Tulsa, Contract Administration Section, Room N-103, 2317 South Jackson Avenue within two (2) weeks of bid opening
2. If the successful Contractor can provide proper bonds and insurance and the contract is executed, the Pre-Construction Conference for this project will be within eight weeks (8) of bid opening.

SPECIAL PROVISION
FOR UTILITY RELOCATIONS
AND DESIGN ISSUES

It is the intent of this specification to provide no more than seventy-five **(75)** calendar days due to delays caused by required utility relocations and required design clarifications. Should the Contractor be delayed in the final completion of work by any utility relocation or design issue, additional days as determined by the Engineer shall be granted by the City. However, the Contractor shall give the Engineer notice in writing of the cause of the delay in each case on the Extension of Time Request Form enclosed in these documents, and agrees that any claim shall be fully compensated for by the provisions of this specification to complete performance of the work. An adjustment will not be made to the contract time bid for incentive purposes.

Any time granted for utility relocations or design issues up to **(75)** calendar days will be in addition to the number of days shown in the proposal for computation of disincentive and liquidated damages.

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SECTION 01 2100 - ALLOWANCE

PART 1 - GENERAL

1.01 WORK COVERED BY ALLOWANCE

- A. An allowance of Fifty Thousand Dollars (\$50,000) has been provided in the contract for various work not identified in the Contract Documents
- B. The allowance shall be used for cost of materials, labor, installation, and overhead and profit for additional work that is not identified in the Construction Documents / Plans, and not included in the base bid pay items.
- C. The allowance shall be used only at the discretion of the City of Tulsa. Any allowance balance remaining at the completion of the project will be credited back to the City of Tulsa on the final application for Payment submitted by the Contractor.
- D. The Contractor shall provide a written request to Field Engineering (City of Tulsa), which will then be reviewed by the City of Tulsa Representative for the use of the allowance. The written request will include a schedule of values, and all associated back up information, including any time extensions required to perform the work.
- E. Contractor shall proceed with work included in the allowance only after receiving a written order, from the City of Tulsa Representative, authorizing such work. Proceeding with work in the allowance without a written order from the City of Tulsa Representative will be at the Contractor's cost.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01 3300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Submittal procedures.
 - 2. Proposed Products list.
 - 3. Submittal schedule.
 - 4. Shop Drawings.
 - 5. Product Data.
 - 6. Samples.
 - 7. Quality control submittals.
- B. Related Sections:
 - 1. Section 01 4000 - Quality Requirements.

1.2 SUBMITTAL PROCEDURES

- A. Number each submittal with Contract Book section number and a sequential number within each section. Number re-submittals with original number and an alphabetic suffix.
- B. Identify project, Contractor, Subcontractor or supplier, pertinent drawing sheet and detail numbers, and specification section number, as appropriate.
- C. Submit all submittals listed under "Submittals for Review" simultaneously for each product or specification section.
- D. Where multiple products function as an assembly, group submittals for all related products into single submittal.
- E. Incomplete submittals will not be reviewed.
- F. Apply Contractor's stamp, signed or initialed certifying that:
 - 1. Submittal was reviewed.
 - 2. Products, field dimensions, and adjacent construction have been verified.
 - 3. Information has been coordinated with requirements of Contract Documents.
- G. Schedule submittals to expedite the project, and deliver to Field Engineering (City of Tulsa). Coordinate submittal of related items.
- H. For each submittal, allow 14 days for Engineer's review, excluding delivery time to and from Field Engineering.
- I. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of completed work.
- J. Revise and resubmit submittals when required; identify all changes made since previous submittal.
- K. Distribute copies of reviewed submittals to concerned parties and to project record documents file. Instruct parties to promptly report any inability to comply with provisions.

1.3 PROPOSED PRODUCTS LIST

- A. Within 15 days after date of Notice to Proceed, submit a complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.
- C. Submit 7 hard copies and electronically in Adobe PDF format.

1.4 SUBMITTAL SCHEDULE

- A. Within 15 days after date of Notice to Proceed, submit a submittal schedule showing all submittals proposed for project, including submittals listed as:
 - 1. Submittals for Review.
 - 2. Quality Control Submittals.
 - 3. Closeout Submittals.
- B. Include for each submittal:
 - 1. Specification section number.
 - 2. Description of submittal.
 - 3. Type of submittal.
 - 4. Anticipated submittal date.
 - 5. For submittals requiring Engineer's review, date reviewed submittal will be required from Engineer.
- C. Submit 7 hard copies and electronically in Adobe PDF format.

1.5 SHOP DRAWINGS

- A. Present information in clear and thorough manner.
- B. Identify details by reference to sheet and detail numbers or room number shown on drawings.
- C. Reproductions of details contained in Contract Documents are not acceptable.
- D. Submit 7 hard copies and electronically in Adobe PDF format. Engineer will return three copies to Field Engineering for printing and distribution.

1.6 PRODUCT DATA

- A. Mark each copy to identify applicable products, models, options, and other data.
- B. Supplement manufacturers' standard data to provide information unique to this Project.
- C. Submit 7 hard copies and electronically in Adobe PDF format. Engineer will return three copies to Field Engineering for printing and distribution.

1.7 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

- B. Where so indicated, submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for Engineer's selection.
- C. Include identification on each sample, with full project information.
- D. Unless otherwise specified in individual specifications, submit two [2] of each sample.
- E. Engineer will notify Field Engineering of approval or rejection of samples, or of selection of color, texture, or pattern if full range is submitted.

1.8 QUALITY CONTROL SUBMITTALS

- A. Quality control submittals specified in Section 01 4000 are for information and do not require Engineer's responsive action except to require resubmission of incomplete or incorrect information.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

END OF SECTION

SECTION 01 4000 - QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. References.
 - 2. Quality assurance and control of installation.
 - 3. Mockups.
 - 4. Manufacturer's field services and reports.
 - 5. Design data and calculations.
 - 6. Test reports and certifications.
 - 7. Manufacturer's installation instructions.

1.2 REFERENCES

- A. For products or workmanship specified by reference to association, trade, or industry standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. If specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Conform to edition of reference standard in effect as of date of project manual.
- D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.3 QUALITY ASSURANCE AND CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.4 MANUFACTURER'S INSTALLATION INSTRUCTIONS

- A. When Contract Documents require that products be installed in accordance with manufacturer's instructions:

1. Submit manufacturer's most recent printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, as applicable.
 - a. Submit in quantities specified for product data.
 - b. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
 - c. Identify conflicts between manufacturers' instructions and requirements of Contract Documents.
2. Perform installation of products to comply with requirements of manufacturer's instructions.
3. If installation cannot be performed in accordance with manufacturer's instructions, notify Engineer and await instructions.
4. Submit 7 hard copies and electronically in Adobe PDF format.

1.5 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, or startup of equipment, as applicable, and to initiate instructions when necessary.
- B. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- C. Submit report to Engineer within 10 days of observation.

1.6 DESIGN DATA AND CALCULATIONS

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide design data and calculations.
- B. Accuracy of design data and calculations is the responsibility of the Contractor.
- C. When so specified, prepare design data and calculations under the direction of a professional engineer licensed in the state in which the project is located. Affix engineer's seal to submittals.
- D. Submit 7 hard copies and electronically in Adobe PDF format.

1.7 TEST REPORTS AND CERTIFICATIONS

- A. When specified in individual specification Sections, require material or product suppliers or manufacturers to provide test reports and manufacturers' certifications.
- B. Indicate that material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Submittals may be recent or previous test results on material or product, but must be acceptable to Engineer.
- D. Submit 7 hard copies and electronically in Adobe PDF format.

1.8 MOCKUPS

- A. Definition:

1. Mockups are field samples constructed, applied, or assembled at the project site for review by the Owner and Engineer that illustrate materials, equipment, or workmanship.
 2. Approved mockups establish the standard of quality by which the work will be judged.
- B. Construct, apply, or assemble specified items, with related attachment and anchorage devices, flashings, seals, and finishes.
- C. Perform work in accordance with applicable specifications sections.
- D. Erect at project site at location acceptable to Engineer. Protect from damage.
- E. Removal:
1. Mockups may remain as part of the work only when so designated in individual specification sections.
 2. Do not remove mockups until removal is approved by Engineer or upon final completion.
 3. Where mockup is not permitted to remain as part of the work, clear area after removal of mockup has been approved by Engineer.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

END OF SECTION

SECTION 01 6000 – PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section

1.02 SUMMARY

- A. This section includes administrative and procedural requirements for selection for products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product solutions; and comparable products.
- B. Related Sections include the following:
 - 1. Division 01 Section "Allowance" for products selected under an allowance.
 - 2. Division 01 Section "Closeout Procedures" for submitting warranties for Contract closeout.
 - 3. Divisions 07 and 09 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.03 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in the manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and Proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other

characteristics for purposes of evaluating comparable products of other named manufacturers.

1.04 SUBMITTALS

- A. Substitution Requests: Submit seven copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
1. Substitution Request Form: Use form provided by Engineer at end of Section.
 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified material or product cannot be provided.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - d. Product Data, including drawings, samples and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. List of similar installations for completed projects with project names and addresses and names and addresses of architects/engineers and owners.
 - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 - i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on the manufacturer's letterhead, stating lack of availability or delays in delivery.
 - j. Cost information, including a proposal of change, if any, in the Contract Sum.
 - k. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.

3. Architect/Engineers Action:
 - a. Pre-Bid Substitution Form of Acceptance: Addendum only
 - b. Post-Bid Substitution Form of Acceptance: Change Order only
 - c. If Engineer does not indicate Acceptance or Approval through addendum or change order, use specified product.
 - d. No notification will be issued of proposed substitutions not approved by Engineer.
 - e. The Engineer's & Owner's decision of approval or disapproval of a proposed substitution shall be final.
- B. Comparable Product Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title drawing numbers and titles.
 1. Engineer's Action:
 - a. Acceptance of Comparable Product will be indicated through addendum or deduct change order only.
 - b. If Engineer does not indicate Acceptance or Approval through addendum or change order, use specified product.
- C. Basis-of-design Product Specification Submittal: Comply with requirements in Division 01 Section "Submittal Procedures." Show compliance with requirements.

1.05 QUALITY ASSURANCE

- A. Compatibility of Options: If Contactor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
 1. Each trade contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 2. If a dispute arises between trade contractors over concurrently selectable but incompatible products, Engineer will determine which products shall be used.

1.06 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, ore sensitive to deterioration, theft, and other losses.
 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.

4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- C. Storage:
1. Store products to allow for inspection and measurement of quantity or counting of units.
 2. Store materials in a manner that will not endanger Project structure.
 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
 4. Store cementitious products and materials on elevated platforms.
 5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
 6. Comply with product manufacturer's written instructions of temperature, humidity, ventilation, and weather-protection requirements for storage.
 7. Protect stored products from damage and liquids from freezing.
 8. Provide a secure location and enclosure at Project site for storage of materials and equipment by Field Engineer (City of Tulsa). Coordinate location with Owner.

1.07 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor or Trade Contractor of obligations under requirements of the Contract Documents.
1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
 3. Refer to Divisions 07 and 09 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 01 Section "Closeout Procedures."

PART 2 - PRODUCTS

2.01 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, that are new at time of installation.
1. Provide products complete with accessories, trim, finish; fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Engineer will make selection.
 5. Where products are accompanied by the term "match sample," sample to be matched is Engineer's.
 6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
 7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 1 "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures:
1. Product: Where Specifications name a single product and manufacturer, provide the named product that complies with requirements.
 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
 3. Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
 4. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
 5. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
 6. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, that complies with requirements.
 7. Product Options: Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or systems, provide the specified product or system.
 8. Basis-of-Design Product: Where Specifications named a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product by the other named manufacturers.

9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Engineer's sample. Engineer's decision will be final on whether a proposed product matches.
 - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.
10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.
 - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Engineer will select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
 - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Engineer will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.02 PRE-BID PRODUCT SUBSTITUTIONS

- A. Timing: Engineer will consider requests for substitution if received by the deadline for RFI's (Requests for Information) which will be announced in the mandatory pre-bid meeting and is typically 7 days after the pre-bid. Requests submitted after the above time period will not be considered and no notification will be issued to Contractor of requested substitutions. All substitution requests shall be submitted via Field Engineering (City of Tulsa). All substitution requests shall be submitted by the General Contractor – (i.e. not subcontractors or product/material vendors).
- B. Materials, products, and equipment described in the Contract Documents establish a minimum standard of required function, dimensions, appearance, and quality to be met by any proposed substitution.
- C. Conditions: Engineer will consider request for substitution when the following conditions are satisfied. The burden of proof of the merit of the requested substitution is upon the proposer. If the following conditions are not satisfied, Engineer will return request without action, except to record noncompliance with these requirements. Entity initiating request shall fill out Substitution Request Form and submit documentation stipulated in paragraph 1.04.A.2, section of 01 6000.
 1. Requested substitution offers Owner a substantial advantage in cost, time, energy, conservation, or other considerations, after deducting additional responsibilities owner must assume. Owner's additional responsibilities may include compensation to Engineer for redesign and evaluation services, (which would be deducted from the Contractor's application for payment from the Owner) increased cost of other construction by owner, and similar considerations.
 2. Substitution request is timely, fully documented and properly submitted.
 3. Evidence that the proposed product does not require extensive revisions to the Contract documents.
 4. Bidder will pay for changes to the building design, including engineering design, detailing, and construction cost caused by the use of proposed substitute.

5. Requested substitution is consistent with the Contract Documents and will produce the indicated results.
6. Bidder had investigated proposed substitute and determined that meets or exceeds the quality level of specified Product.
7. Requested substitution provided specified warranty.
8. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
9. Requested substitution is compatible with other portions of the Work.
10. Requested substitution has been coordinated with other portions of the Work.
11. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
12. List of similar installations for completed projects with project names and addresses and names and addresses of architects, engineers and owners, if requested.
13. Samples, if requested.
14. Requested substitution will not adversely affect Contractor's construction schedule.
15. Trade contractor or Supplier shall submit documentation from manufacturer or material supplier of specified product certifying that the specified Product cannot be provided within the Contract Time.
16. Requested substitution has received necessary approvals of authorities having jurisdiction.

D. Each request includes the following:

1. Written request in form and procedures required for a change order proposals.
2. Identification of specification Section number, paragraph number, and name and description of specified material, product, or equipment for which substitution is requested.
 - a. Include items specifically required as Submittals in individual specification Sections.
 - b. Substitution requests not including sufficient information necessary for an evaluation by the Engineer will not be approved, nor will Engineer contact entity requesting substitution in order to obtain additional information.
3. Description of changes to the Contract Documents which proposed substitute will require for its proper installation.
4. Trade Contractor or Supplier has determined that maintenance and repair parts will be locally available for requested substitute.
5. Contractor has reviewed and approved requested as fully complying with the specifications.

E. Trade contractor's submittal and acceptance by Engineer of Product Data, Shop Drawings, Samples, manufacturer's installation instructions, manufacturer's certificates, or test reports for Products not complying with Contract Documents will not constitute valid request for substitution request, acceptance of substitution request form and substitution is clearly defined and noncompliant nature clearly disclosed.

- F. The Engineer's and Owner's decision of approval or disapproval of a requested substitution shall be final.
 - 1. No notification will be issued of requested substitutions not approved by Engineer and Owner.

2.03 POST-BID PRODUCT SUBSTITUTIONS

- A. Timing: Engineer will consider requests for substitution if received within 60 days after date of agreement between Owner and Contractor or 60 days after date of Notice to Proceed, whichever is earlier.
- B. Requests submitted after the above time period will not be considered and no notification will be issued to Contractor of requested substitutions.
- C. Conditions: Engineer will consider Contractor's request for substitution when the following conditions are satisfied. The burden of proof of the merit of the requested substitution is upon the proposer. If the following conditions are not satisfied, Engineer will return requests without action, except to record noncompliance with these requirements. Entity initiating request shall fill out Substitution Request Form and submit documentation stipulated in paragraph 1.03.A.2, Section 01 6000.
 - 1. Requested substitution offers owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities owner must assume. Owner's additional responsibilities may include compensation to Engineer for redesign and evaluation services, (which would be deducted from the Contractor's application for payment from the Owner) increased cost of other construction by Owner, and similar considerations.
 - 2. Substitution request is timely, fully documented and properly submitted.
 - 3. Evidence that the proposed product does not require extensive revisions to the Contract Documents.
 - 4. Requested substitutions consistent with the Contract Documents and will produce the indicated results.
 - 5. Specified Product cannot be provided within the contract time.
 - a. Contractor shall submit documentation from manufacturer or material supplier of specified product certifying that the specified product cannot be provided within the Contract Time.
 - b. Substitution request will not be considered if product cannot be provided as a result of failure of Contractor to pursue Work promptly or coordinate Work properly.
 - 6. Specified Product cannot receive necessary approval by authority having jurisdiction and requested substitution can be approved.
 - a. Contractor shall submit documentation from authority having jurisdiction certifying that specified Product cannot receive necessary approval.
 - 7. Specified product cannot be provided in a manner compatible with other specified Products and Contractor certifies requested substitute will overcome incompatibility.
 - a. Contractor shall submit evidence that specified Product cannot be provided in a manner compatible with other specified Products.
 - 8. Specified Product cannot be coordinated with other specified Products and Contractor certifies requested substitute can be coordinated.

- a. Contractor shall submit evidence that specified Product cannot be coordinated with other specified Products.
 - 9. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - 10. Trade Contractor or Supplier shall submit documentation from manufacturer or material supplier of specified product certifying that specified Product cannot be provided within the Contract Time.
 - 11. Substitution request will not be considered if Product cannot be provided as a result of failure of Trade Contractor or Supplier to pursue Work promptly or coordinate Work Properly.
- D. Each request includes the following:
- 1. Seven copies of written request in form and procedures required for Change Order proposals.
 - 2. Identification of specification Section number, Paragraph number, and name and description of specified material, Product, or equipment for which substitution is requested.
 - 3. Complete description of the requested substitute including product data, drawings, samples, performance and test data, and other information necessary for an evaluation by the Engineer and Owner.
 - a. Include items specifically required as Submittals in individual specification Sections.
 - b. Detailed comparison of qualities of requested substitution with specified Product.
 - c. Engineer may request additional information or documentation for evaluation.
 - d. Description of changes to the Contract Documents which requested substitute will require for its proper installation.
 - e. Description of changes or modifications needed to other parts of Work and construction to be performed by Owner and Owner's separate contractors which will be necessary to accommodate requested substitution.
 - f. Contractor's statement indicating requested substitution's effect on Contractor's Construction Progress Schedule compared to schedule without acceptance of requested substitution.
 - 1) Indicate requested substitution's effect on overall Contract Time.
 - g. Cost information including a proposal of the net change, if any in Contract Sum.
 - h. Contractor's certificate of waiver of rights for claim of addition in Contract Sum or extension in Contract Time that may subsequently become necessary because of requested substitution's failure to perform adequately.

2.04 COMPARABLE PRODUCTS

- A. Conditions: Engineer will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Engineer will return requests without action, except to record noncompliance with these requirements:
 - 1. Requests for comparable products are to be submitted per Per-Bid Substitutions and Post-Bid Substitutions procedure described in this Section.

PART 3 EXECUTION (Not Used)

END OF SECTION

Refer to Section 01 600 – Product Requirements. This form is a summary of responses required by A/E. This form shall accompany the submittal requirements per Section 01 600, Paragraphs 1.04.A. List all attachments

SUBSTITUTION REQUEST

Project: SP 22-02 2022 TAO Garage Repairs Substitution Request Number: _____

From: _____
To: _____ Date: _____

A/E Project Number: _____
RE: _____ Contract For: _____

Specification Title: _____ Description: _____

Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution: _____
Manufacturer: _____ Address: _____ Phone: _____
Trade Name: _____ Model No: _____
Installer: _____ Address: _____ Phone: _____
History: ☐ New Product ☐ 2-5 yrs old ☐ 5-10 yrs old ☐ More than 10 yrs old
Difference between proposed substitution and specified product: _____

☐ Point-by-Point comparative data attached - REQUIRED BY A/E

Reason for not providing specified item: _____

Similar Installation:
Project: _____ Architect/Engineer: _____
Address: _____ Owner: _____

Date Installed: _____
Proposed substitution affects other parts of Work: ☐ No ☐ Yes; explain: _____

Savings to Owner for accepting substitution: _____ (\$ _____)

Proposed substitution changes Contract Time: ☐ No ☐ Yes [Add] [Deduct] _____ days

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports

SECTION 01 7329 - REMOVAL, CUTTING, PATCHING & DISPOSAL

PART 1 - GENERAL

1.01 REMOVAL AND CUTTING

- A. Do not disturb any existing structure, piping, apparatus, equipment or other construction unless required by the Contract.
- B. Remove existing construction and materials only where indicated on the Drawings and also as required to perform the repair work.
- C. Cut and alter existing materials as required to perform the repair work. Limit cutting, grinding, chipping to the smallest amount necessary, as required per the contract drawings.
- D. Provide temporary shoring as necessary to prevent settlement, to safely support all affected structure loads, and to prevent damage to existing construction which is to remain.
- E. Perform the cutting, drilling, chipping, demolition and removal in a manner which will prevent damage to adjoining construction which is to remain.
- F. Prior to any cutting, drilling, chipping, demolition or removal, investigate both sides of the surface involved.
- G. Determine the exact location of all structural members. Do not cut, drill, or remove structural members such as joists, beams, or columns supporting construction that is to remain unless expressly required by the work. If unforeseen obstructions are encountered, take all precautions necessary to prevent damage and obtain instructions from the Owner's Representative before proceeding with the Work.

1.02 PATCHING

- A. Patch existing construction and finishes, damaged, or left incomplete due to removal and repair. Patching, except as otherwise indicated or approved by the Owner, shall be limited to areas which have been cut, altered or demolished.
- B. Prepare existing surfaces properly to receive and, where required, bond with the repair work.
- C. Unless otherwise indicated, provide new materials to match the appearance and performance of existing corresponding materials as closely as practicable.
- D. Paint patched areas and surfaces which will remain exposed by removals to match existing adjacent surfaces as closely as practicable using same type of paint. Painting, except as otherwise indicated, shall be limited to the areas which have been patched.

- E. Protect existing structure, vehicles and people from damage or injury from construction activities.
- F. Control dust, fumes and debris generated by the work. Do not allow them to accumulate on vehicles in or around the garage.

1.03 DISPOSAL

- A. Do not store or stockpile new materials, waste or demolition materials in excess of 1000 pounds or more than 40 pounds per square foot, on any level of the garage above Level 1. Store materials and waste only in areas where approved by the Owner and Garage Operator.
- B. On a regular basis, at least weekly, remove and legally dispose off site all waste, debris and demolition materials generated by the repair work.
- C. Comply with all applicable governmental rules and regulations for handling and disposal of demolition debris and waste.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01 7700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Closeout procedures.
 - 2. Final cleaning.
 - 3. Project record documents.
 - 4. Operation and maintenance data.
 - 5. Warranties.
 - 6. Spare parts and maintenance materials.
 - 7. Demonstration and instructions.

1.2 CLOSEOUT PROCEDURES

- A. Final Inspection:
 - 1. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that work is complete in accordance with the Contract Documents and ready for Engineer's inspection.
- B. Submit final Application for payment showing original contract sum, adjustments, previous payments, retainage withheld from previous payments, and sum remaining due.
- C. Closeout Submittals:
 - 1. Evidence of compliance with requirements of governing authorities.
 - 2. Project record documents.
 - 3. Operation and maintenance data.
 - 4. Warranties.
 - 5. Spare parts and maintenance materials.
 - 6. Evidence of payment of subcontractors and suppliers.
 - 7. Final lien waiver.
 - 8. Certificate of insurance for products and completed operations.
 - 9. Consent of surety to final payment.

1.3 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean debris from roofs and drainage systems.
- C. Clean site and sweep paved areas.
- D. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.4 PROJECT RECORD DOCUMENTS

- A. Maintain following record documents on site; record actual revisions to the work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.

4. Change Orders and other Modifications to the Contract.
 5. Reviewed Shop Drawings, Product Data, and Samples.
 6. Material Safety Data Sheets.
- B. Store record documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. Make entries neatly and accurately.
- E. Label each set or volume with title "PROJECT RECORD DOCUMENTS", project title, and description of contents.
1. Organize contents according to project manual table of contents.
 2. Provide table of contents for each volume.
- F. Drawings: Mark each item to record actual construction including:
1. Measured depths of foundations in relation to finish floor datum.
 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the work.
 4. Field changes of dimension and detail.
 5. Details not on original drawings.
 6. Record or Check List sheets providing installation information where specified.
 7. Quantity and type of installed bid units on the plans where repaired.
 8. Quantity of each bid unit actually installed on the Summary of Quantities Table on the plans.
- G. Specifications: Mark each product section description of actual products installed, including the following:
1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates utilized.
 3. Changes made by addenda and modifications.
- H. Shop Drawings: Mark each item to record actual construction including:
1. Field changes of dimension and detail.
 2. Details not on original shop drawings.
- I. Material Safety Data Sheets:
1. Maintain copies of manufacturer's material safety data sheets for each product incorporated into the work.
 2. Indicate manufacturer name, product name, chemical composition, hazards, and safety and health procedures.
- J. Submit 7 hard copies and 3 copies electronically on 3 separate CD's in Adobe PDF format.

1.5 OPERATION AND MAINTENANCE DATA

- A. Identify as "OPERATION AND MAINTENANCE INSTRUCTIONS" and title of project.
- B. Contents:
1. Directory: List names, addresses, and telephone numbers of Engineer, Contractor, Field Engineering personnel, Subcontractors, and major equipment suppliers.

2. Operation and maintenance instructions: Arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for special finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.
 3. Project documents and certificates including:
 - a. Shop drawings and product data.
 - b. Certificates.
 - c. Copies of warranties and bonds.
- C. Submittal:
1. Submit 2 hard copies and 3 copies electronically on 3 separate CD's or flash drive in Adobe PDF format at least 15 days prior to final inspection.
 2. Engineer will notify Field Engineering of any required revisions after final inspection.
 3. Revise content of documents as required prior to final submittal.
 4. Submit 2 hard copies and 3 copies electronically on 3 separate CD's in Adobe PDF format within 10 days after final inspection.

1.6 WARRANTIES

- A. Execute and assemble documents from Subcontractors, suppliers, and manufacturers. Warranties must be signed, dated and notarized by manufacturer, and co-signed by installer where applicable.
- B. Include Table of Contents.
- C. Submit 2 hard copies and 3 copies electronically on 3 separate CD's in Adobe PDF format along with final Application for Payment.
- D. For items of work delayed beyond date of substantial completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of warranty period.

1.7 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual specification sections.
- B. Deliver to project site in location as directed; obtain receipt prior to final payment.

1.8 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to date of Substantial Completion.
- B. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owners' personnel in detail to explain all aspects of operation and maintenance.
- C. Prepare and insert additional data in operation and maintenance manuals when need for additional data becomes apparent during instruction.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

Not used

END OF SECTION

SECTION 03 0131 - CONCRETE REHABILITATION

PART 1 - GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

- A. Crack Repair by Epoxy Injection: Section 03 0132.
- B. Water Repellent Sealer: Section 07 1900.
- C. Joint Sealant: Section 07 9200.

1.02 REFERENCES

- A. Except as shown or specified, the Work of this Section shall conform to the requirements of International Concrete Repair Institute (ICRI), 3166 S. River Rd., Suite 132, Des Plaines, IL 60018, (847) 827-0830, www.icri.org.
 - 1. ICRI Guideline No. 310.1R-2008 Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion (formerly Guideline No. 03730).

1.03 UNIT PRICES FOR ADDED OR DEDUCTED WORK

- A. Do not exceed the quantities of repair work indicated by numeric units on the Drawings or the Bid Proposal, except by written approval of the Owner's Representative. In order to avoid delay, notify the Owner's Representative when the amount of completed repair work approaches the quantity indicated.
- B. Refer to General Conditions regard payment for final quantities over or under the defined bid quantity of work units.
- C. Unit prices shall include overhead, profit, and all other expenses incidental to the repair work. Include in the bid sum all additional costs in connection with quantity changes that are not compensated for at the given unit prices.

1.04 SUBMITTALS

- A. Product Data: Manufacturer's specifications and installation instructions for factory packaged products.

1.05 QUALITY ASSURANCE

- A. Field Examples: Where specifically required by the Contract Documents, prior to performing the repair work of this section, prepare a sample panel, or a portion of existing concrete which is to be repaired, to represent each type of rehabilitation work required. Approved samples will be used as quality standards for the Work. Maintain approved samples at the site until the Work is completed.

- B. Material Container Labels: Material containers shall bear the manufacturer's label indicating manufacturer's name, trade name of product, lot number, shelf life of product, and mix ratio (if applicable).

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the site in original, sealed containers. Do not deliver materials that have exceeded shelf life limitation set forth by the manufacturer.
- B. Comply with manufacturer's printed instructions for storing and handling materials.

1.07 PROJECT CONDITIONS

- A. Environmental Requirements: Comply with the product manufacturer's printed limitations and instructions.

PART 2 - PRODUCTS

2.01 COMPANIES

- A. The Euclid Chemical Company, 19218 Redwood Rd., Cleveland, OH 44110-2799, (800) 321-7628, www.euclidchemical.com.
- B. Sika Corporation, 201 Polito Ave., Lyndhurst, NJ 07071, (800) 933-7452, www.sikausa.com.
- C. Master Builders Solutions, 889 Valley Park Dr., Shakopee, MN 55379, (800) 433-9517, www.master-builders-solutions.com/en-us

2.02 MATERIALS

- A. The following brand names are provided to establish product generic type and standard of quality. Use appropriate product for depth of patch and temperature at time of application. A bonding agent/primer and/or sealer shall be used as recommended by the repair mortar manufacturer.
- B. Vertical and Overhead Repairs - Cement/Acrylic/Latex Base Repair Mortar:
 - 1. EucoRepair SCC Fast by The Euclid Chemical Company;
 - 2. SikaTop 123 Plus by Sika Corp;
 - 3. MasterEmaco N 425 by Master Builders Solutions
- C. Epoxy Base Repair Mortar: High modulus, high viscosity, moisture insensitive, epoxy resin and aggregate system:
 - 1. Sikadur 31 Hi-Mod Gel by Sika Corporation;
 - 2. MasterEmaco ADH 327 by Master Builders Solutions
 - 3. SurePoxym HM Gel, or SurePoxym 117 by Kaufman Products, Inc.
 - 4. Aggregate: As recommended by the patching mortar manufacturer

for the binder and application.

- D. Rapid-hardening Cementitious Patching Mortar:
 - 1. SikaQuick 1000 or SikaQuick 2500, by Sika Corp;
 - 2. Duracrete by Kaufman Products, Inc.
 - 3. Euco-Speed by Euclid Chemicals.
 - 4. MasterEmaco T 1060/1061, by Master Builders Solutions
- E. Rebar Coating:
 - 1. SurePoxy HM EPL by Kaufman Products, Inc.
 - 2. ECB by Conproco Corp.
 - 3. MasterEmaco P 124 by Master Builders Solutions;
 - 4. Sika Armatec 110 EpoCem by Sika Corp;
 - 5. DuralPrep A.C. by Euclid Chemical Corp.
- F. Cleaning Agent, Bonding Agent/Primer, Sealer / Topcoat:
As recommended by the patching mortar manufacturer, including primer for the reinforcing steel and primer for the concrete substrate.
- G. Concrete and Bonding Agent (for concrete): Normal weight cast-in-place concrete and adhesive bonding agent as specified in Section 03 3001.
- H. Surface Applied Migrating Corrosion Inhibitor with silane or silane / siloxane carrier, (not a water-based or water carrier product):
 - 1. Protectosil CIT by Evonik Industries
 - 2. Ferrogard 908, by Sika Corp.
 - 3. MasterProtect 8500 CI, by Master Builders Solutions

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protection: Cover or otherwise protect adjacent surfaces not being repaired.
- B. Surface Preparation:
 - 1. Prepare surfaces to be repaired in accordance with the product manufacturer's printed instructions and as specified.
 - 2. Cut out and remove cracked, spalled, and disintegrated concrete. Cut back to sound concrete. Cut edges of patch perpendicular to surface of patch, unless otherwise recommended by mortar manufacturer. If steel reinforcing bars are exposed, chip concrete out from behind exposed length of bars as required for a minimum clearance around circumference of bar of 3/4 inch. In addition, cut a minimum one-inch length of sound concrete away from each end of exposed length of reinforcing bars, to at least 1-inch beyond cleaned rebar corrosion.
 - 3. When the corrosion inhibitor has dried, Clean exposed steel reinforcement; remove bits of concrete and loose rust. If reinforcement is bowed out toward surface of the concrete, bend reinforcement back from surface.
 - 4. Remove paint, oils, grease, dirt, salt deposits, laitance and other contaminants from surfaces to be patched. Use cleaning agent where required.

5. Clean areas to be patched with oil-free air or water under pressure, except as otherwise recommended by the mortar manufacturer.

3.02 COATING REBAR

- A. Coat reinforcing as soon as possible after completion of surface preparation.
- B. Place reinforcement coating complying with manufacturers printed instructions.
- C. When using a fast set repair mortar, coating must be cured or dry before placing the mortar, or use a fast set epoxy resin bonding agent compatible with the repair mortar.

3.03 PATCHING CONCRETE

- A. Patch concrete as soon as possible after completion of surface preparation.
- B. Mixing Repair Mortar: Comply with mortar manufacturer's printed instructions. Proportion components and sizes of aggregate as recommended by mortar manufacturer for the particular job conditions.
- C. Patch concrete in accordance with the product manufacturer's printed instructions.
 1. Coat contact surfaces of existing concrete and steel reinforcing with a bonding agent/primer as recommended in the product manufacturer's instructions.
- D. Bring patches out to the original surfaces in true planes. Finish patches to match texture of adjoining concrete as close as possible.
- E. Cure patches in accordance with the product manufacturer's printed instructions.
- F. Clean surface and apply surface applied corrosion inhibitor to the area.
(Not required for Slab-on-Grade patches.)

3.04 CLEANING

- A. Clean up spatters and droppings.

3.05 PROTECTION

- A. Protect mortar after placement in accordance with the product manufacturer's printed instructions.

3.06 FIELD QUALITY CONTROL

- A. Concrete Testing Service: Owner will engage a qualified independent testing agency to perform material evaluation tests to Evaluate Bond of Concrete Surface Materials per ASTM C1583 and ICRI Guideline #210.3-2004.
 1. Locations for testing shall be determined by Engineer of Record at the time of Construction

2. A minimum of three specimens shall be prepared per test location.
3. A baseline test shall be performed on the prepared exposed concrete substrate. Exposed concrete substrate shall be ground flat and smooth for adhesion of the testing puck. This is to establish the existing concrete substrate bond strength.
4. A final test shall be performed within the same repair area that the baseline sample was taken.
5. Bond strength testing shall be performed in surface repair greater than 36 square feet.
3. Acceptance criteria shall be based on a combination of the following testing criteria:
 - o Average pull off strength shall exceed 175 psi bond strength
 - o No individual test specimen shall be less than 80% of the 175 psi bond strength.
 - o Test failure mode (a) [ASTM C1583] acceptable bond
 - o Test failure mode (b) or (c) [ASTM C1583] unacceptable bond
 - o Test failure mode (d) [ASTM C1583] test failure – choose new site and re-test
4. Testing shall be made perpendicular to the repair surface.
5. Do not use hand core drills to prepare specimens.
6. Do not perform test where the concrete substrate is less than 3 inches.
7. Prepare report per ASTM C1583. Test results shall be reported in writing to Architect, Structural Engineer, Owner, Owner's consultant, and Contractor within 48 hours of testing.
8. In any case, where tests of concrete fail to meet acceptance criteria specified herein, Structural Engineer of Record shall be the sole judge of structural adequacy of concrete. In such case, burden of proof of structural adequacy shall be the responsibility of Contractor. If bond strength evaluation testing indicates, in opinion of Structural Engineer of Record, that the repair is of inadequate strength; portions of repair in question shall be repaired or removed and replaced as directed by the Structural Engineer of Record at no additional expense to Owner.
9. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
10. Correct deficiencies in the Work that test reports indicate do not comply with the Contract Documents.
12. Contractor to locate all reinforcing, including PT strand locations in the areas to be tested prior drilling testing specimens.
13. Contractor to fill testing specimens' holes with a high strength, non-shrink, non-metallic grout, minimum $f'c=5,000$ psi.

END OF SECTION

SECTION 03 0132 - CRACK REPAIR BY EPOXY INJECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Structural repair of cracks in concrete by permanently rebonding the concrete with epoxy resin adhesive injected under pressure with special equipment.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Concrete Rehabilitation: Section 03 0131.

1.03 PERFORMANCE REQUIREMENTS

- A. Seepage of water through cracks repaired under the repair work of this section will be regarded as defective work subject to the one year guarantee required by the General Conditions.
- B. Work on this Contract shall conform to all requirements of ACI Specification 503.7-07, "Specification for Crack Repair by Epoxy Injection," published by the American Concrete Institute, Farmington Hills, Michigan, except as modified by these Contract Documents."

1.04 SUBMITTALS

- A. Product Data: Manufacturer's printed specifications and installation instructions for epoxy adhesive and surface seal material.
- B. Quality Control Submittals:
 - 1. Test Reports:
 - a. Submit reports for tests specified under Source Quality Control.
 - b. If requested, submit test reports for all specified characteristics and properties of the epoxy adhesive materials from an Independent Testing Laboratory.
 - 2. Certificates: Epoxy adhesive manufacturer's written certification that each batch of epoxy adhesive material shipped for this Project complies with the requirements of these specifications.

1.05 QUALITY ASSURANCE

- A. Installer's Qualifications: Epoxy injection shall be performed by a firm that is licensed or approved by the epoxy adhesive manufacturer to perform such work. In addition, the person supervising the epoxy injection shall be experienced in epoxy injection, and shall have been regularly employed for a minimum of five years by a company specializing in repairing cracks by epoxy injection.
 - 1. If requested, furnish to the Owner the names and addresses of five similar projects for which the supervisor has supervised epoxy injection work.

- B. Workers' Qualifications: Workers engaged in the repair work of this section shall have satisfactorily completed a program of instruction in the epoxy injection process. The instruction shall include this specific method of repairing cracks in concrete, the technical aspects of correct material use, and the operation, maintenance and checking of equipment.
- C. Testing Agency: Tests for all specified characteristics and properties of the epoxy adhesive materials shall have been performed by a qualified Independent Testing Laboratory and copies of the test results shall be available. Tests indicated under Source Quality Control shall be performed by the adhesive manufacturer.
- D. Source Quality Control: The following quality control tests shall be performed on each lot of epoxy adhesive materials supplied for this Project.
 - 1. Resin viscosity at 77 degrees F and epoxide equivalent weight.
 - 2. Hardener viscosity at 77 degrees F and amine value.
 - 3. Combined components pot life at 77 degrees F.
 - 4. Cured (for 7 days) adhesive ultimate tensile strength and tensile elongation at break; and slant shear strength for wet/wet concrete cured 3 days.
- E. Material Container Labels: Material containers shall bear a manufacturer's label indicating manufacturer's name, trade name of product, lot number, shelf life of product, and mix ratio by volume.
- F. Equipment for Injection: The injection equipment shall meter and mix the adhesive components, and inject the mixed adhesive into the cracks. Equipment shall be a portable, positive displacement type pump unit with interlock to insure exact ratio control of the two components at the nozzle. Unit shall have metering pumps, electrically or air powered, which will provide in-line metering and mixing of the adhesive components.
 - 1. Discharge Pressure: The injection equipment shall have automatic pressure control capable of discharging the mixed adhesive at any pre-set pressure up to 200 psi (within a tolerance of plus or minus 5 psi), and shall be equipped with a manual pressure control override.
 - 2. Ratio Tolerance: The injection equipment shall have the capability of maintaining the volume ratio for the adhesive, as prescribed by the manufacturer of the adhesive, within a tolerance of plus or minus 5 percent by volume at any discharge pressure up to 200 psi.
 - 3. Automatic Shut-Off Control: The injection equipment shall have sensors on both component reservoirs that will automatically stop the machine when only one component is being pumped to the mixing head.

1.06 DELIVERY AND STORAGE

- A. Deliver materials to the site in original, sealed containers bearing manufacturer's label. Do not deliver materials which have exceeded shelf life limitation set forth by the manufacturer.
- B. Comply with manufacturer's printed instructions for storing materials in original, sealed containers at a temperature between 32 degrees F and 90 degrees F.

1.07 PROJECT CONDITIONS

- A. Environmental Requirements: Comply with manufacturer's recommendations for conditions under which materials can be applied.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Epoxy Adhesive: Two component, low viscosity, epoxy resin adhesive system containing 100 percent solids, with no solvents or non-reactive diluents and shall comply with ASTM C-881 and AASTHO M-235. Acceptable systems and product manufacturers are provided to establish product generic type and standard of quality:
 - 1. Sikadur 35, Hi-Mod LV injection resin with Sikadur 31 or Sikadur 33 sealing paste adhesive by Sika Corporation
 - 2. Euco #452 Epoxy System by Euclid Chemical Company
 - 3. Pro-Poxy 100 injection resin with Pro-Poxy 300 sealing paste by Dayton Superior / Unitex
 - 4. MasterInject 1380 by Master Builders Solutions
- B. Surface Seal: Material with adequate strength and adhesion to hold injection fittings firmly in place and to prevent leakage of epoxy adhesive during injection, and removable without damaging or defacing structure being repaired.
- C. Finishing Patching Materials: As required to match color, texture, and performance of adjoining surfaces as closely as practicable.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Clean cracks and adjacent surfaces free of loose material, dust, dirt, grease, oil, efflorescence, and other foreign matter in accordance with epoxy adhesive manufacturer's printed instructions and as required for proper bonding of surface seal. Do not use acids or corrosives.
- B. Inspect each crack noted for repair to determine its width, condition, and potential daily movement. Measure cracks when they will be at their widest during the day. Do not repair any crack that is less than 0.13 mm (0.005 in.) at its widest point.
- C. Remove fines, dirt, and moisture from cracks with compressed air or water injected under pressure. If necessary, drill holes to intersect a crack below observed contamination to determine if it is injectable and if it will obtain satisfactory bonding of the two sides of crack.

- D. Establish entry ports along each crack spaced at intervals not greater than the thickness of the concrete member being repaired.
- E. Apply surface seal material to the face of each crack between the entry ports as required to prevent escape of injected epoxy adhesive. For cracks all the way through the concrete member, apply surface seal to both faces of cracks where accessible. Provide ports on the opposite face to demonstrate full penetration of the crack with resin for thin or narrow members. Allow sufficient time for the surface seal material to gain adequate strength before proceeding with epoxy injection.
- F. If cracks extend into moving joints, plug or seal off the cracks at the joints.

3.02 EPOXY INJECTION

- A. Set up and check injection equipment and material in accordance with the manufacturer's instructions and as specified in ACI 503.7. Do not thin epoxy adhesive.
- B. Beginning at the lowest entry port in the crack, unless otherwise recommended by the installer because of the configuration of the crack, inject epoxy adhesive in the entry port until there is an appearance of adhesive at the next adjacent entry port. When epoxy adhesive travel is indicated at the next adjacent port, discontinue injection in the port, seal off the port, and resume injection in the next adjacent port. Continue this procedure until the crack has been injected full of epoxy adhesive for its entire length in one continuous operation. For horizontal cracks, proceed from one end of the crack to the other end in the same manner. Seal the last port, and allow the adhesive to cure. Hold pressure constant at last port for at least 5 minutes with no pressure drop or cycling of pump to insure complete filling with epoxy.
- C. If port to port travel of epoxy adhesive does not result after a reasonable amount of pumping, stop injecting adhesive. Report abnormal conditions (if any) immediately to the Owner's Representative and Engineer for evaluation.

3.03 FINISHING

- A. Remove surface seal and entry port fittings when epoxy adhesive has sufficiently cured to allow removal without disturbing the adhesive.
- B. Fill the face of the crack out flush with the concrete surface plane with patching materials. Eliminate indentations and evidence of port fittings. Finish patches to match texture of adjoining concrete surface as closely as practicable.

3.04 FIELD QUALITY CONTROL

- A. Furnish equipment necessary to perform field testing.
- B. Pressure and Ratio Tests: Perform the pressure and discharge tests specified in ACI 503.7 for each injection equipment unit.

- C. Frequency of Pressure and Ratio Tests: Perform a pressure test and ratio tests for each injection equipment unit at the beginning of each shift and any time the unit is used after a 4-hour or long shutdown period. If the ratio of the two components is not within specified tolerance, stop injection work until the equipment is brought into compliance.
- D. Perform and pass the Qualification tests for mixing effectiveness of equipment according to paragraph 1.5.3 of ACI 503.7 before the start of test injection work of paragraph 1.5.4 of ACI 503.7, by repairing a test crack selected by the Owner's Representative or the Engineer.

3.05 CLEANING

- A. Remove adhesive runs and spills from existing surfaces by a method which will not deface the surfaces being cleaned.
- B. Recoat painted surfaces to match the original coating if damaged by runs and spills of epoxy during this repair.

END OF SECTION

SECTION 03 0133 – CHEMICAL GROUT INJECTION

PART 1 - GENERAL

1.01 Scope

- A. The work shall include the furnishing by the Contractor, of all supervision, training, labor, materials, tools and equipment and the performance of all operations necessary for the chemical grouting work indicated in the Contract Drawings, specified herein, and/or as directed by the Engineer.
- B. The work consists of the injection of liquid chemical grouts into active leaks through concrete cracks, joints or holes located in roofs, sidewalls, floors, rooms beams and other locations as shown on the Contract Drawings and in other area designated by the Engineer and located within the limits of the Contract.
- C. The work shall be performed in a skillful and workmanlike manner with special care taken to prevent damage to existing structures, drains and utility lines. Damage caused by improper work procedures or failure to maintain drains, lines, equipment or structures shall be the responsibility of the Contractor.
- D. Documentation of the work performed shall be submitted by the Contractor, including both daily work Reports and color-coded markings of grouting locations marked neatly on the concrete surface adjacent to each leak repaired, at the time of completion of the repair to indicate grouting pass number, grout used, grouting crew identity and date of repair. Contractor shall submit his documentation and coding scheme for approval.

1.02 Contractor Qualifications

The chemical grouting work specified herein shall be performed by a qualified Contractor with a minimum of five (5) years recent experience in performing chemical grouting work in similar conditions. A letter must be submitted from the installation contractor on Master Builders Solutions letterhead and signed by the manager stating that the injection contractor is and has been properly trained and qualified to perform such work using acrylate / acrylic resin technology.

1.03 Field Supervision

Manufacturer grouting consultant shall have a minimum of ten (10) years of related recent experience under similar conditions and recognized in writing by Master Builders Solutions. All injection regardless of qualification will be over seen by the representative from Master Builders Solutions to ensure the highest quality are met.

1.04 SUBMITTALS

Product Data: Manufacturer's specifications and installation instructions for factory packaged products.

1.05 QUALITY ASSURANCE

Material Container Labels: Material containers shall bear the manufacturer's label indicating manufacturer's name, trade name of product, lot number, shelf life of product, and mix ratio (if applicable).

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to the site in original, sealed containers. Do not deliver materials that have exceeded shelf-life limitation set forth by the manufacturer.

B. Comply with manufacturer's printed instructions for storing and handling materials.

1.07 PROJECT CONDITIONS

Environmental Requirements: Comply with the product manufacturer's printed limitations and instructions.

PART 2 - PRODUCTS

2.01 COMPANIES

Master Builders Solutions, 889 Valley Park Dr., Shakopee, MN 55379, (800) 433-9517

2.02 MATERIALS

A. The chemical grout will be MasterRoc MP 300 by Master Builders Solutions, MasterRoc MP 300 is a multi-component Acrylic resin chemical grout material which has an additional accelerator that allows the material to have controlled set times, material is installed by use of the injection port method.

The reacted / cured chemical grout will be resistant to most organic solvents, mild acids, alkali, and microorganisms and be essentially environmentally friendly.

2.03 ACCELERATOR

A. The accelerator and Hardener are provided by Master Builders Solutions.

PART 3 - EXECUTION

3.01 INSTALLATION – CURTAIN WALL

A. Locating and drilling injection ports.

Injection ports will be located and drilled as described below:

Injection of Chemical Grout through wall procedure:

Injection port holes shall be marked at a distance of no less than 2 foot on center on the wall and floor surface with alternating rows thereafter, Jobsite conditions will dictate port spacing. Injection of chemical grout shall take place from left to right moving upward or across only when area has been grouted to refusal. Injection port holes shall remain open as a method of monitoring the travel of the chemical grout, and once material appears at open injection hole then an injection packer or port may then be installed. Documentation using an Injection grout log must be documented on the amount of material injected into each location and the area the material covered.

Prior to drilling injection ports the contractor will check for the presence of reinforcing steel in the concrete wall by use of GPR or similar scanning systems to locate reinforcing and avoid damage to reinforcing steel. Where reinforcement is encountered, a port will be relocated to

the nearest adjacent area that is free of steel reinforcement. An individual port may be relocated up to 6" (six inches) away from the original "on grid" location without requiring that an additional injection port be installed. Where the presence of reinforcing steel or any other barrier causes the port to be relocated more than 6" away from the original "on grid" location, an additional port will be installed in the area where the distance between ports is greater than 2'-6" (two feet, six inches) on center.

Where the presence of steel reinforcement or any other barrier require that several adjacent ports or an entire row/column be relocated, the ports may be moved up to 4" (four inches) from the original "on grid" location. Where the ports must be relocated more than 4" away from the original "on grid" location, an additional series of ports will be installed in the area where the distance between ports is greater than 2'-4" (two feet, four inches) on center.

All drilled holes that do not penetrate through the entire thickness of the concrete wall (such as those port holes that are partially drilled and then abandoned due to obstructions) will be filled with high strength non-shrink cementitious grout.

All injection ports will be cleaned of all debris and fitted with an injection fitting as provided by the manufacturer of the chemical grout or equal. The injection fitting will be installed as directed by the manufacturer's instructions and will remain in place until chemical grout injection work has been completed at that area. Caps or valves will be installed at the injection ports to prevent backflow of the uncured chemical grout after it has been injected.

B. Equipment

Injection of two component, or plural component materials, require the use of a fixed ratio injection pump that is designed to pump the desired ratio material specified by the manufacturer.

When using chemical grouts that are water reactive it is recommended that two pumps be used, one for water one for chemical grout taking caution that the chemical grout pump never has water introduced into it.

C. Injection of Chemical Grout.

The contractor will follow the instruction of the chemical grout Manufacturer and their representatives for all mixing and injection procedures. An onsite technical representative shall be present during the injection to monitor and document the process of the injection contractor.

D. Water Injection Test

Prior to chemical grout injection, injection of colored / dyed water can be injected through injection ports to determine the leaks in the sheet pile wall. Once these locations are determined, set times on the MasterRoc MP 300 can be adjusted to minimize waster.

3.02 INSTALLATION – CRACK INJECTION

Install in accordance with manufacturer's instructions.

A. Expose the cracks.

1. Clean crack surface using wire brush, grinder with wire cup wheel or by other mechanical means, to remove mineral deposits, coatings or other debris.
2. Pressure washing surface may also be used. If severe contamination exists, a chemical cleaner may be used but must be flushed or neutralized prior to injection.

B. Drill injection holes.

1. Prior to drilling injection ports the contractor will check for the presence of reinforcing steel in the concrete by use of GPR or similar scanning systems to locate reinforcing and avoid damage to reinforcing steel. Where reinforcement is encountered, a port will be relocated to the nearest adjacent area that is free of steel reinforcement.
2. Port spacing is determined by the width of the crack and thickness of the concrete. In general, set port spacing at the same distance as concrete thickness. Tight cracks can be 3 to 4 inches apart where wider cracks can be up to 24 inches apart. Staggering ports from side to side is recommended practice whenever possible.
3. To intersect a crack at the mid-point, injection port holes should be drilled at a 45-degree angle at one-half the thickness of the concrete. *Example: 12-inch thick concrete; injection port hole should be drilled 6 inches from crack.*
4. Drilled holes should intersect the crack or joint at the midpoint, so chemical grout can be injected into the center of the concrete allowing the resin to expand both directions sealing the entire crack, filling any voids and micro cracks in the structure as the material expands and cures.
5. Drilling injection holes is commonly performed using a 3/8, 1/2 inch diameter drill bits.
6. Flush drilled holes with clean water to remove dust and debris before inserting port or mechanical packer.

C. Install injection ports and zerk fittings.

1. Various types of mechanical packers are available in the market.
2. Once port is snug in hole insert grease or zerk fitting into port.
3. Mechanical packers are inserted into drilled hole until top of rubber sleeve is just below the concrete surface.
4. Tighten using a wrench or ratchet turning clockwise until firm, do not over tighten.
5. Installing each port is recommended but leaving the grease coupler / zerk fitting off so you can monitor the travel is a common practice.
6. Avoid hammering or driving ports in by hammering on the grease coupler / zerk fitting.

D. Equipment

1. Injection of two component, or plural component materials, require the use of a fixed ratio injection pump that is designed to pump the desired ratio material specified by the manufacturer.
2. When using chemical grouts that are water reactive it is recommended that two pumps be used, one for water one for chemical grout taking caution that the chemical grout pump never has water introduced into it.

E. Flush the crack with water.

1. Flushing the crack prior to injecting chemical grout will ensure that the crack is free of debris, and drilled holes for injection ports have intersected the crack. This also ensures that enough water is available to react resin.
2. Inject water using designated water pump. Starting on the lowest port when injecting vertical cracks; or starting at one end and working across when injecting

horizontal cracks. Continue injection with water until crack has been flush and clean water has appeared.

F. Inject resin and allow to cure.

1. Add accelerator to chemical grout per manufacturer's instructions. Inject chemical grout into packers in the same manner as water injection described above.
2. When injecting a vertical crack, injection should be started at the bottom and work upwards as material seals crack
3. When injecting horizontal cracks, injection should start at one end working across the structure.
4. Use minimum pressure required to inject the chemical grout. *Once again: Care should be taken that the injection pump pressures should be dialed down and only increase as needed. Pump pressure too high may result in cracking or spalling of the concrete.*
5. Injection shall be performed allowing material to travel and seal off crack. When material is spotted at location of next port, insert grease coupler/zerk onto port and continue to pump on existing port. *Patience is critical at this stage of injection; expect injection rates to be 5-7 minutes per gallon depending on crack widths, length of travel, injection pressure, etc. Do not over pressurize port.*
6. Advancement to next port should take place when movement of material has stopped on existing port or material exiting crack at a wasteful amount.

G. Completion and clean up.

1. After the work area has been injected with chemical grout, attempt to re-inject water into each port to ensure that crack and drilled holes have been sealed.
2. After injection has been completed, the removal of each injection port/packer can be performed by simply pulling the ports/packers out of the structure. If necessary, ports or packers can be drilled out.
3. Once ports have been removed, injection holes should be filled Using a hydraulic cement, non- shrink grout or epoxy gel.
4. Remove any wasted, cured resin so site is left clean and professional looking.

END OF SECTION

SECTION 03 3001 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions.

1.02 REFERENCES

- A. Except as shown or specified otherwise, the work of this section shall conform to the requirements of Specifications for Structural Concrete for Buildings ACI 301 of the American Concrete Institute, current edition.

1.03 SUBMITTALS

- A. Submittals Package: Submit product data for design mix(es) and materials for concrete specified below at the same time as a package. Include any technical data sheets available for the products.
- B. Shop Drawings:
 - 1. Placing drawings for bar reinforcement, anchors and embeds.
 - 2. Details including bar sizes, materials, length, grade, bar schedules, spacing, splices, laps and other info required for correct placement.
 - 3. Welding procedure for rebar weld splices, if any provided.
- C. Product Data:
 - 1. Concrete design mix(es) with name and location of batching plant.
 - 2. Portland Cement: Brand and manufacturer's name.
 - 3. Air-entraining Admixture: Brand and manufacturer's name.
 - 4. Water-reducing Admixture: Brand and manufacturer's name.
 - 5. Aggregates: Name and location of source.
 - 6. Lightweight Coarse Aggregate: Brand and manufacturer's name
 - 7. Chemical Curing Compound: Brand and manufacturer's name, and application instructions.
 - 8. Bonding Agent (Adhesive): Brand and manufacturer's name, and preparation and application instructions.
 - 9. Expansion Joint Filler: Brand and manufacturer's name.
 - 10. Surface Applied Corrosion Inhibitor: Brand and manufacturer's name.

1.04 QUALITY ASSURANCE

- A. Ready-Mix Manufacturer: A firm experienced in manufacturing ready mixed concrete products that comply with ASTM C 94 / C 94M requirements for production facilities and equipment.
- B. Welding of Reinforcing Steel: Qualify procedures and personnel according to AWS D1.4, "Structural Welding Code – Reinforcing Steel".

- C. Welding of Structural Steel: Qualify procedures and personnel according to ANSI/AWS D1.1, Structural Welding Code, latest revision.
- D. Testing Agency Qualifications: An independent agency, qualified according to ASTM C 1077 and ASTM E 329 for testing indicated, as documented according to ASTM E 548.
 - 1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician.

1.05 STORAGE

- A. Store materials so as to insure the preservation of their quality and fitness for the Work. Materials, even though accepted prior to storage, are subject to inspection and shall meet the requirements of the Contract before their use in the Work.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Cementitious Material:
 - 1. Portland Cement: ASTM C 150, Type I or II
- B. Normal-Weight Aggregates: ASTM C 33.
- C. Water: ASTM C 494 and potable.
- D. Admixtures:
 - 1. Air-Entraining Admixture: ASTM C 260.
 - 2. Water-Reducing Admixture: ASTM C 494, Type A.
 - 3. High-Range, Water-Reducing Admixture: ASTM C 494, Type F.
- E. Fly Ash: Do not use
- F. Chemical Curing: ASTM C-309, Type 1, Class B. No thinning of material allowed.
- G. Expansion Joint Filler: Preformed, resilient, non-extruding cork units; ASTM D 1752.
- H. Expansion Joint Filler: Preformed, resilient, non-extruding bituminous units; ASTM D 1751.
- J. Epoxy Bonding Agent (Adhesive): 100 percent solids epoxy-resin-base bonding compound, complying with ASTM C 881, types IV or V..
 - 1. Sikadur Hi-Mod 32 by Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071, (800) 933-7452.
 - 2. Epogrip by Sonneborn/ BASF Building Systems, 889 Valley Park Drive, Shakopee, MN 55379, (800) 433-9517.

- K. Plastic Vapor Retarder: ASTM E 1745, Class C, or polyethylene sheet, ASTM D 4397, not less than 10 mills thick. Include manufacturer's recommended adhesive or pressure-sensitive joint tape.
- L. Aggregate base: clean mixture of crushed stone or gravel; ASTM D448, Size 57, with 100 percent passing a 1-1/2-inch sieve and 0 to 5 percent passing a No. 8 sieve, or ODOT Aggregate Base Class C.
- M. Surface Applied Corrosion Inhibitor: Penetrating (migratory) corrosion inhibitor coating for hardened concrete surfaces with silane or silane / siloxane carrier. (Cannot be a water-based or water carrier product).
 - 1. Protectosil CIT by Evonik Industries
 - 2. Ferrogard 908, by Sika Corp.
 - 3. MasterProtect 8500 CI, by BASF

2.02 CONCRETE MIX DESIGN:

- A. Compressive Strength: Normal weight with Minimum 3000 psi, unless shown or specified otherwise.
- B. Slabs-on-Grade:
 - 1. Minimum 4000 psi at 28 days.
 - 2. Minimum Cementitious Materials Content: 520 lb/cu. yd.
 - 3. Slump Limit: 4 inches plus or minus 1 inch.
 - 4. Maximum course aggregate size: 1 inch.
- C. Suspended Structural Slabs and members:
 - 1. Minimum 4000 psi at 28 days.
 - 2. Minimum Cementitious Materials Content: 540 lb/cu. yd.
 - 3. Slump Limit: 4 inches plus or minus 1 inch.
 - 4. Maximum course aggregate size: 1 inch.
- D. Concrete Toppings, (where required or permitted):
 - 1. Minimum 4000 psi at 28 days.
 - 1. Minimum Cementitious Materials Content: 540 lb/cu. yd.
 - 2. Slump Limit: 4 inches plus or minus 1 inch.
 - 3. Maximum course aggregate size: 3/4 inch.
- E. Durability: All concrete shall be air-entrained unless specifically approved otherwise. Design air content shall be 6.5 percent by volume, with an allowable tolerance of plus or minus 1.5 percent for total air content. Entrained air shall be provided by use of an approved air-entraining admixture. Air-entrained cement shall not be used.
- F. Slump:
 - 1. 4000 psi Normal Weight Concrete: Between 2 inches and 3 inches.
- G. Admixtures: Use of admixtures in concrete must be approved by the Engineer.

- H. Selection of Proportions: Concrete proportions shall be established on the basis of previous field experience or laboratory trial batches, unless otherwise approved in writing by the Owner or Engineer. Proportion mix with a minimum cement content of 564 pounds per cubic yard for 3000 psi concrete and 611 pounds per cubic yard for 4000 psi concrete.
- I. Concrete Mixing:
 - 1. Ready-Mix Concrete: Measure, batch, mix and deliver according to ASTM C 94, and provide batch ticket information to Owner.
 - 2. Project-Site Mixing: Only allowed for pre-mixed repair mortars.

2.03 REINFORCEMENT:

- A. Bar Reinforcement: ASTM A 615, Grade 60, deformed steel bars.
- B. Fabric Reinforcement: ASTM A 185, welded wire fabric, fabricated into flat sheets unless otherwise indicated.

2.04 WELDING OF STRUCTURAL STEEL:

- A. Electrodes: 70 ksi, low hydrogen, unless noted otherwise.
- B. Comply with AWS D1.4 welding code.
- C. Welders must be certified for the procedures and positions welded.
- D. Preheat rebar as required by code.

PART 3 - EXECUTION

3.01 EXAMINATION AND PREPARATION:

- A. Keep excavations free of water. Do not deposit concrete in water.
- C. Hardened concrete, reinforcement, forms, and earth which will be in contact with fresh concrete shall be free from frost at the time of concrete placement.
- D. Prior to placement of concrete, remove all debris, dust, hardened concrete spillage and foreign materials from the space to be occupied by the concrete.

3.02 PLACING REINFORCEMENT:

- A. At the time concrete is placed, reinforcement shall be free of mud, oil, loose rust, loose mill scale, and other materials or coatings that may adversely affect or reduce the bond.

3.03 PLACING CONCRETE:

- A. Do not allow concrete to free fall more than 4 feet.
- B. Consolidate fresh concrete in place.

3.04 FINISHING FORMED SURFACES:

- A. Finish Schedule: Except where indicated otherwise on the Drawings, provide the finishes below:
 - 1. Rough Form Finish for concrete surfaces not exposed to view.
 - 2. Match existing adjacent surface finish for concrete surfaces exposed to view.

3.05 CURING AND PROTECTION:

- A. Maintain concrete surfaces in a moist condition for at least 7 days after placing, or apply 2 coats of curing compound in accordance with the recommendations of product manufacturer.
- B. Maintain forms and shoring in place until new concrete has reached at least 75% of the design strength, and it is safe to remove them from the work area.

3.06 FIELD QUALITY CONTROL:

- A. Provide a copy of test and inspection reports to the Owner's Representative, the Engineer, the concrete manufacturer and the Contractor.
- B. Concrete Tests: Test samples of fresh concrete obtained according to ASTM C-172 according to the following requirements:
 - 1. Testing Frequency: Obtain one composite sample for each day's pour of concrete mixture that exceeds 2.0 cu. yd., but not less than 25 cu. yd., plus one additional set for each additional 50 cu. yd. or fraction thereof.
OR
For any one surface repair greater than 20 sqft.
 - 2. Slump: ASTM C 143, one test at point of placement for each sample taken, but not less than one test for each day's placement of concrete.
 - 3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; one test for each sample, but not less than one test for each day's pour of concrete.
 - 4. Compression Test Specimens: ASTM C31. Cast and cure one set of cylinders for each composite sample when more than 2.0 cu. yd. of concrete are placed.

END OF SECTION

SECTION 03 9100 – SURFACE APPLIED CORROSION INHIBITOR

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Surface applied corrosion inhibitor for steel-reinforced concrete.
- B. Related Sections:
 - 1. Section 03 3001 – Cast-in-Place Concrete.

1.02 SUBMITTALS

- A. Comply with Section 01 3300
- B. Product Data: Submit manufacturer's technical data sheets.
- C. Submit list of project references as documented in this Specification under Quality Assurance Article. Include contact name and phone number of person charged with oversight of each project.
- D. Quality Control Submittals:
 - 1. Provide protection plan of surrounding areas and non-work surfaces.

1.03 QUALITY ASSURANCE

- A. Comply with Section 01 4000
- B. Qualifications:
 - 1. Manufacturer Qualifications:
 - a. Company with minimum 15 years of experience in manufacturing of specified products.
 - b. Company shall be ISO 9001:2000 Certified.
 - 2. Applicator Qualifications:
 - a. Company with minimum of 5 years experience in application of specified or similar products on projects of similar size and scope and is acceptable to product manufacturer.
 - b. Successful completion of a minimum of 5 projects of similar size and complexity to specified Work.
- C. Field Sample:
 - 1. Install at Project site or pre-selected area of building an area for field sample, as directed by Architect.
 - a. Provide mockup of at least 100 ft² (9.3 m²) to include surface preparation, sealant joint, and juncture details and allow for evaluation of water-repellent performance and finish.
 - b. Apply material in accordance with manufacturer's written application instructions.
 - 2. Manufacturer's representative or designated representative will review technical aspects; surface preparation, application, and workmanship.
 - 3. Field sample will be standard for judging workmanship on remainder of Project.
 - 4. Maintain field sample during construction for workmanship comparison.
 - 5. Do not alter, move, or destroy field sample until Work is completed and approved by Architect.
 - 6. Obtain Architect's written approval of field sample before start of material application, including approval of aesthetics, color, texture, and appearance.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01 6000
- B. Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
- C. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- D. Store in unopened containers in clean, dry area between 35 degrees F (2 degrees C) and 110 degrees F (43 degrees C).

1.05 PROJECT CONDITIONS

- A. Environmental Requirements:
 - 1. Minimum ambient and substrate temperature is 40 °F (-7 °C) and rising, during and 24 hours after installation.
 - 2. Do not proceed with application of materials if ice or frost is covering the substrate.
 - 3. Do not proceed with application if ambient or substrate temperature exceeds 100°F (38 °C).
 - 4. Do not apply in rain or when rain is expected within 4 hours.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Subject to compliance with requirements, provide products from the following manufacturer:
Master Builders Solutions, Inc.
Construction Chemicals
889 Valley Park Drive
Shakopee, MN 55379
Customer Service: 800- 433-9517
- B. Substitutions: Comply with Section 01 6000
- C. Specifications and Drawings are based on manufacturer's proprietary literature from Master Builders Solutions. Other manufacturers shall comply with minimum levels of material and detailing indicated in Specifications or on Drawings. Architect will be sole judge of appropriateness of substitutions.

2.02 MATERIALS

- A. Clear, liquid, reactive penetrating corrosion inhibitor with built-in latent phase corrosion inhibitor for protection of new and existing concrete surfaces. Penetrates deeply, sealing out water, chloride ions, and acids, preventing damage from freeze/thaw cycles, and provides additional protection when concrete cracks.
 - 1. Acceptable Product: MasterProtect 8500CI by BASF.
- B. Corrosion inhibitor shall have the following minimum performance:
 - 1. Color: Slight amber (fugitive dye may be added.)
 - 2. Density: 7.3-7.4 lbs/gal
 - 3. Nitrite content: <1%
 - 4. Chloride content: <20 ppm
 - 5. pH: 6.5-8.5
 - 6. Compliance: Alberta DOT, Type 1b.
 - 7. Surface Appearance after Application: Unchanged.

8. Flash Point, SETA: Greater than 140 °F (60 °C).
9. VOC Content: <300 g/L, less water and exempt solvents, per EPA Method 24.
10. Must reduce total corrosion current by 90% or greater using ASTM G109 subjected to 48 weeks of cyclic salt water ponding.
11. Must reduce chloride penetration by 75% at a depth of 10-20 mm versus untreated control, per ASTM C1543, after 180 days of salt water ponding.
 - a. Note: A qualified independent laboratory must perform all corrosion and chloride penetration testing.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Comply with Section 01 7000.

3.02 SURFACE PREPARATION

- A. Protection: Protect plant life and surfaces to remain uncoated during application. Use drop cloths or masking as required.
- B. Prepare surfaces in accordance with manufacturer's instructions.
- C. Verify substrate has properly cured. Surfaces shall be clean and structurally sound. Remove dust, dirt, oil, grease, chemical films, coatings and other contaminants before application.
- D. Do not apply corrosion inhibitor if standing water is visible on surface to be treated.

3.03 APPLICATION

- A. Apply corrosion inhibitor in accordance with manufacturer's instructions.
- B. Stir material thoroughly before and during application.
- C. Apply corrosion inhibitor with flooding action. Eliminate ponding.
- D. Apply even distribution of corrosion inhibitor.

3.04 PROTECTION

- A. Protect corrosion inhibitor from damage during construction.

END OF SECTION

SECTION 07 1900 - WATER REPELLENT SEALER

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide water repellent sealer on concrete decks of specific garages in this Contract, where noted on the plans or on other documents provided by the Owner.
- B. Related work specified elsewhere.
 - 1. Joint Sealant: Section 07 9200.

1.02 SUBMITTALS

- A. Product Data: Catalog sheets, specifications, MSDS sheets and installation instructions for each material specified. Include manufacturer's printed statement of VOC content where appropriate.
- B. Samples: Liquid water repellent; one quart.
- C. Quality Control Submittals:
 - 1. Test Reports: Laboratory certified test results.

1.03 QUALITY ASSURANCE

- B. Field Example:
 - 1. Provide a sample application of not less than 100 sq ft to determine the application method most suitable for the existing substrate conditions and to assure that no staining or discoloration occurs.
 - 2. Select a test area that most accurately represents the actual substrate conditions.
 - 3. Notify the Owner's Representative in writing 5 days in advance of the proposed dates and time for the sample application.
 - 4. After curing of the sample application, conduct water spray test to verify that the treatment repels moisture.
 - 5. Do not proceed with the Work until the sample application has been approved by the Owner's Representative in writing.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the job site in original sealed containers, clearly marked with manufacturer's name, brand, and material description.
- B. Store materials in conformance with the manufacturer's written instructions, stored to prevent damage to containers and to protect from freezing temperatures.

1.05 PROJECT CONDITIONS

- A. Do not apply water repellent on surfaces that contain moisture or frost. Do not apply during precipitation or when precipitation is forecast within five (5) hours

following completion of application. Comply with the manufacturer's written requirements for temperature and humidity conditions.

- B. Do not apply water repellent when the surface, material or air temperatures are lower than 40° F during application, nor when the temperature is expected to fall below
- C. Do not apply water repellent until restoration of the substrate has been completed and joint sealants applied.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Liquid Water-Repellent
 - 1. Product Description: A non-toxic, breathable, clear water repellent intended for single-coat application, that, after cure, leaves no visible surface residue, color, or gloss. Silicone or acrylic based materials are not acceptable.
 - 2. Water Repellent Sealer: Minimum of 100 percent solids (by weight);
 - a. Basis of Design Product – MasterProtect H 1000 by BASF.
 - b. SikaGard 705L, by Sika
 - b. Approved equal.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protection: Protect existing construction, including windows and doors, not required to be treated. Cover live vegetation.
- B. Surface Preparation: Comply with manufacturer's printed recommendations and the following:
 - 1. Remove dust, dirt, oil, efflorescence, loose particles, and all other foreign matter. Blast clean with shot, sand or water. As a minimum, power wash deck surfaces with pressurized clean water. Allow prepared surfaces to dry thoroughly.

3.02 APPLICATION

- A. Apply material in accordance with the manufacturer's printed instructions and the approved field example, with a minimum of one coat of water repellent.
- B. Apply water repellent material by low pressure airless spray method unless otherwise approved by the Owner's Representative.
- C. Squeegee all excess ponding material off the surface before it dries.
- D. Do not exceed the coverage rates provided by produce manufacturer for the product used. Verify with test area application on each garage.

- E. After curing of the water repellent, test all treated surfaces with a water spray. Dry and re-coat all areas that show water absorption. If necessary, repeat the application until specified water repellency has been obtained.

3.03 CLEANING

- A. Remove protective materials after water repellent work has been completed.
- B. Restore all adjacent surfaces, defaced by the work, to conditions equal to or better than those existing prior to the start of water repellent applications.

END OF SECTION

SECTION 07 5338 - ELASTOMERIC COATING

PART 1 - GENERAL

1.01 SYSTEM DESCRIPTION

- A. Description of System: Liquid applied polyurethane deck coating with integral aggregate surfacing to be applied over existing epoxy coating on a structural concrete deck, (not slab on grade).

1.02 SUBMITTALS

- A. Product Data: Catalog sheets, specifications and installation instructions for each material specified.
- B. Quality Control Submittals:
 - 1. Applicator's Certification: Submit a letter certifying that the applicator has installed fluid applied deck coating for the past 5 years.
- C. Contract Closeout Submittals:
 - 1. Warranty – Notarized, time period as specified.

1.03 QUALITY ASSURANCE

- A. Applicator's Qualifications: The application of the elastomeric deck coating shall be performed by a firm regularly engaged in the application of fluid applied deck coatings for the past 5 years.
- B. Pre-Installation Conference: Prior to starting the work and before any materials are ordered, a conference will be called by the Owner's Representative at the site to discuss the specifications, details, application requirements and all other pertinent aspects of the work of this section. The meeting shall be attended by the Contractor and Coating Applicator.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: All components shall be delivered in the manufacturer's unbroken containers bearing the manufacturer's printed labels.
- B. Storage: Store all materials in a dry, ventilated place protected from sun and weather.

1.05 PROJECT CONDITIONS

- A. Do not execute the work of this section under conditions that are contrary to the approved specifications and recommendations of the manufacturer.
- B. Do not execute the work of this section unless the Owner's Representative is present or unless he directs the work be performed during his absence.

- C. Do not apply the work of this section until the substrate has inspected and approved by the Contractor. Commencement of coating installation implies acceptance of substrate as suitable to accept the coating.
- D. Do not apply the work of this section when the deck or air temperature is below 40 degrees F., or when adverse weather is expected that will affect the work.

1.06 WARRANTY

- A. Provide the deck coating manufacturer's 3-year warranty.

PART 2 - PRODUCTS

2.01 ELASTOMERIC DECK COATING

- A. Provide liquid applied, two-component, chemically cured, polyurethane deck coating system complete with the manufacturer's aggregate surfacing, primers, sealers and all other companion products. The deck coating shall possess the following minimum physical properties:
 - 1. Generic Type: Two-component urethane.
 - 2. Hardness Top Coat: 60 shore A, ASTM D2240.
 - 3. Tensile Strength: 650 PSI, ASTM D412.
 - 4. Elongation: 340 percent, ASTM D412.
 - 5. Adhesion: 18 lbs per inch, ASTM D903.
15 lbs per inch, ASTM D429 Method B.
 - 6. Tear Resistance: 90 lbs per linear inch, ASTM D1004.
85 lbs per linear inch, ASTM D624 Die C.
 - 7. Fire Resistance: Class A or B, ASTM - E - 108/UL 790.
 - 8. Low Odor
 - 9. Fast Cure Time for quick turn around
 - 10. Color: Dark Grey; Must be approved by Garage Operator
- B. Acceptable Products:
 - 1. Sikalastic 720/745 Traffic System by Sika Corp., Heavy Traffic, (55 mils dry excluding aggregate), 800-933-7452.
 - 2. MasterSeal Traffic 2500 by Master Builders Solutions, Heavy Traffic, (Approx. 55 mils dry excluding aggregate), 800-433-9517.
 - 3. Other approved equal system.

PART 3 - EXECUTION

3.01 PREPARATION

- A. With the Garage Operator's permission, schedule and block off the area to be coated with barricades and signage redirecting traffic away from the work site.
- B. Inspect existing surfaces for delaminations, spalls or other damage that may affect the performance of the new coating. Correct all deficiencies before proceeding with installation of the new coating.

- C. Verify compatibility of new coating with an existing coating to remain or remove the existing coating where new is to be installed. Clean and abraid any existing coating as required to provide adequate surface profile for good adhesion of the new coating. Preparation of the substrate shall be as recommended by the manufacturer and shall include, but not be limited to the removal of dirt, dust, debris, foreign matter, and light sandblasting or shot blasting. As an alternate, at the Contractor's option, the existing epoxy coating may be totally removed if required to provide adequate bond for the new coating, and to provide the desired long life of coating.
- D. Patch all voids and spalled or excessively rough areas of the existing deck and curbs with patching mortar. Work the repaired areas to produce a smooth surface level with the surrounding surface.
- E. Conduct a base coat adhesion test to verify that surface preparation and adhesion are acceptable.
- F. Priming: Prime all surfaces to receive the new deck coating with the manufacturer's primer to bond to the existing prepared surfaces. Apply a sealer over the primer if required by the manufacturer. Apply the primer and sealer in strict accordance with the manufacturer's written instructions.

3.02 APPLICATION

- A. Repairing Cracks in Existing Surfaces:
 - 1. Repair all cracks in the existing surfaces before applying the deck coating.
 - 2. To prevent existing cracks, 1/8-inch or wider, from reflecting through the new coating, apply a 4-inch wide strip of glass fabric reinforcement, centered over the cracks, embedded in and coated with the elastomeric deck coating applying sufficient coating to completely hide the fabric.
 - 3. Detail coves, corners, seams and terminations per product manufacturer's recommendations and details. Provide a 1/4-inch x 1/4-inch keyway along the termination edge of coating if it is not otherwise protected or locked in to prevent raveling of the edge.
 - 4. Install the new primer coat only after all sealants and other materials installed for preparation of surfaces have fully cured, with a minimum cure time of 24 hours.
 - 5. Fully coat the area(s) noted on plan or by note, including fully coating the curbs, and lapping 1 inch up walls and the bottom of handrail posts. Provide cove sealant joint in corners of horizontal surface meeting a vertical surface.
 - 6. Maintain straight edges using duct tape or other appropriate means. Upon removal of edge tape or other control, the final edge of deck coating shall have a straight bonded edge.
 - 7. Apply primer, base coat, intermediate coat(s) with anti-skid aggregate, and top coat strictly following product manufacturer's instructions.
 - 8. Allow adequate cure time, per manufacturer's recommendations, before opening the newly coated surface to traffic.
 - 9. Repaint traffic or other existing paint markings on the new surface.

3.03 FIELD QUALITY CONTROL

- A. Check the wet film thickness frequently during the application of the base coats, with the manufacturer's recommended gauge.
- B. Remove excess aggregate before opening to pedestrians.
- C. Apply additional material at all areas which are not 50-dry-mils thick.
- E. Patch all cuts and test-removal spots with the deck coating material; restore the membrane to full integrity and surface uniformity before applying the wearing and finish coats.

END OF SECTION

SECTION 07 9200 - JOINT SEALANT

PART 1 - GENERAL

1.01 SUMMARY

- A. Remove and provide new sealant in pavement, slab and wall joints where indicated on plans, and where existing sealant is removed to accomplish other repair work.
- B. Route and seal existing and new cracks where indicated on the plans.
- C. Remove and install new fast cure silicone traffic grade sealant in slab / pavement expansion joints where indicated on plan.

1.02 SUBMITTALS

- A. Product Data: Catalog sheets, tech data sheets, specifications, and installation instructions for each product specified, except miscellaneous materials.
- B. Samples: Upon request of the Owner, submit samples of each sealant, backing material, bond breaker and primer proposed for the work of this section.

1.03 QUALITY ASSURANCE

- A. Installer's Qualifications: The persons installing the sealants and their supervisor shall be personally experienced in the installation of sealants and shall have been regularly employed by a company engaged in the installation of sealants for a minimum of two years.
 - 1. Furnish to the Owner the names and addresses of five similar projects which the foregoing people have worked on during the past two years.
 - 2. Furnish a letter from the sealant manufacturer, stating that the foregoing people are authorized to install the manufacturer's sealant materials and that the manufacturer's specifications are applicable to the requirements of this project.
- B. Pre-Work Conference: Prior to starting the work and before materials are ordered, discuss the specifications, details, and application requirements for sealants. The meeting shall be attended by the Contractor and the sealant applicator.
- C. Container Labels: Include manufacturer's name, trade name of product, kind of material, federal specification number (if applicable), expiration date (if applicable), and packaging date or batch number.
- D. Test and validate sealants used for exterior weathersealing per the Sealant Waterproofing Restoration Institute (SWRI).

- E. Warranties: Provide the following signed and notarized warranties from product manufacturer and installing Contractor for the project work. Identify the joints covered by warranty on each garage plan.
1. Polyurethane or Silicone pavement sealant: 5 year Warranty.
 2. Silicone fast cure traffic sealant in Expansion Joints: 5 year material performance warranty with a material plus labor remedy.

1.04 PROJECT CONDITIONS

- A. Environmental Requirements:
1. Temperature: Unless otherwise approved or recommended in writing by the sealant manufacturer, do not install sealants at temperatures below 40 degrees F or above 85 degrees F for non-silicone sealants and below minus 20 degrees F or above 125 degrees F for silicone sealants.
 2. Humidity and Moisture: Do not install the work of this section under conditions that are detrimental to the application, curing, and performance of the materials.
 3. Ventilation: Provide sufficient ventilation wherever sealants, primers, and other similar materials are installed in enclosed spaces. Follow manufacturer's recommendations.
- B. Protection:
1. Protect all surfaces adjacent to sealants with non-staining removable tape or other approved covering to prevent soiling or staining.
 2. Protect all other surfaces in the work area with tarps, plastic sheets, or other approved coverings to prevent defacement from droppings.

PART 2 - PRODUCTS

2.01 SEALANTS

- A. For horizontal joints in pavement, slab, sidewalk and deck joints in concrete or between steel angles, excluding expansion joints, color gray:
1. Type 1 Sealant - One-part, self-leveling silicone sealant Use SL (Self leveling) for horizontal joints and NS (Non-Sag) for vertical joints.
 - a. Dow Corning FC Parking Structure Sealant
 - b. Dow Corning 890;
 - b. Crafcro Roadsaver Silicone;
 - c. Sikasil 728.
 2. Type 2 Sealant - One-part or two-part, polyurethane sealant Use SL (Self-leveling) for horizontal joints and NS (Non-Sag) for vertical joints.
 - a. Sikaflex – 1cSL
 - b. Sikaflex – 1A
 - c. MasterSeal NP1 or SL1 by Master Builders Solutions
 - d. MasterSeal NP2 or SL2 by Master Builders Solutions
 - e. Pourthane by WR Meadows

3. Primer – As required for the sealant, materials and use as specified by the product manufacturer. Primer and sealant must be produced and provided by the same company.
- B. For horizontal joints at expansion joints, up to 2.25 inches wide, or where noted on drawings:
1. Two-part, self-leveling, rapid cure, silicone sealant:
 - a. Dow Corning 902 or FC Parking Structure Silicone Sealant;
 - b. Sikasil 728 RCS Silicone Sealant.
 2. Primer – As required for the sealant, materials and use as specified by the product manufacturer. Primer and sealant must be produced and provided by the same company.
 3. Joint configuration – Width, recess, thickness, bond breaker / backer rod and side wall preparation / primer must comply with sealant manufacturer's specific recommendations. Modify project details as required to comply with manufacturer's requirements.
- C. For horizontal joints at expansion joints, over 2.25 inches wide up to 4 inches wide:
1. Two-part, self-leveling, rapid cure, silicone sealant:
 - a. Dow Corning 902 or FC Parking Structure Silicone Sealant.
 - b. Other silicone products may be acceptable if sealant manufacturer will warranty for this width joint.
 2. Primer – As required for the sealant, materials, side wall materials and use as specified by the product manufacturer. Primer and sealant must be produced and provided by the same company.
 3. Joint configuration – Width, recess, thickness, bond breaker / backer rod and side wall preparation / primer must comply with sealant manufacturer's specific recommendations. Modify project details as required to comply with manufacturer's requirements.
- D. For vertical joints in concrete or between steel angles, around doors or other openings:
1. One-part or two-part, non-sag silicone sealant:
 - a. Dow Corning 888 (NS);
 - b. Crafcro Roadsaver Silicone NS;
 - c. Sikasil 728.
- E. Sealant Colors: For exposed materials provide standard neutral or gray color as selected from manufacturer's standard colors. For concealed materials, provide the natural color which has the best overall performance characteristics.

2.02 JOINT FILLERS

- A. Closed Cell Neoprene Joint Filler: ASTM D 1056, Class SC (oil resistant and medium swell), 2 to 5 psi compression deflection.

- B. Expanded Polyethylene Joint Filler: Flexible, compressible, closed-cell polyethylene of not less than 10 psi compression deflection (25 percent).

2.03 MISCELLANEOUS MATERIALS

- A. Joint Primer/Sealer/Conditioner: As recommended by the sealant manufacturer for the particular joint surface materials and conditions.
- B. Backer Rod: Compressible rod stock of expanded, extruded polyethylene.
- C. Bond Breaker Tape: Polyethylene or other plastic tape as recommended by the sealant manufacturer; non-bonding to sealant; self adhesive where applicable.
- D. Cleaning Solvents: Oil free solvents as recommended by the sealant manufacturer. Do not use re-claimed solvents.
- E. Masking Tape: Removable paper or fiber tape, self-adhesive, non-staining.
- F. Backer Support at Expansion Joints: Permanent, rigid closed cell plastic foam board with bond breaker on top.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine all joint surfaces for conditions that may be detrimental to the performance of the completed Work. Do not proceed until satisfactory corrections have been made.

3.02 PREPARATION

- A. Clean joint surfaces immediately before installation of sealant and other materials specified in this Section.
 - 1. Remove all loose materials, dirt, dust, rust, oils and other foreign matter that will impair the performance of materials installed under this section.
 - 2. Remove lacquers, protective coatings and similar materials from joint faces with manufacturer's recommended solvents.
 - 3. Do not limit cleaning of joint surfaces to solvent wiping. Use methods such as grinding, acid etching or other approved and manufacturer's recommended means, if required, to clean the joint surfaces, assuring that the sealant materials will obtain positive and permanent adhesion. As a minimum, sandblast both side walls of sealant joints, followed by cleaning with oil free compressed air.
- B. Set joint fillers at proper depth and position as required for installation of bond breakers, backer rods, and sealants. Do not leave voids or gaps between the ends of joint filler units.

1. Smooth Edged Joints: For joints between two concrete slabs or where new concrete abuts smooth edged materials use closed cell polyurethane joint filler.
 2. Irregular Edged Joints: For joints where new concrete abuts irregular edges use closed cell polyurethane joint filler.
- C. Priming Joint Surfaces:
1. Prime the side walls of all sealant expansion joints and regular sealant joints, not including route and seal joints.
 2. Prime joints other than those above if so recommended by the manufacturer's printed instructions.
 3. Do not allow the primer / sealant to spill, drop or migrate onto adjoining surfaces. If this occurs, remove from the surfaces.

3.03 JOINT BACKING INSTALLATION

- A. Install bond breaker tape in relaxed condition as it comes off the roll. Do not stretch the tape. Lap individual lengths.
- B. Install backer rod of sufficient size to fill the joint width at all points in a compressed state. Do not twist 2 or more backer rods together to obtain the width needed for joint. Compress backer rod at the widest part of the joint by a minimum of 25 percent. Do not cut or puncture the surface skin of the rod.

3.04 SEALANT INSTALLATION

- A. Except as shown or specified otherwise, install sealants in accordance with the manufacturer's printed instructions.
- B. Install sealants with ratchet hand gun or other approved mechanical gun. Where gun application is impractical, install sealant by knife or by pouring as applicable.
- C. Finishing: Tool all vertical, non-sag sealants so as to compress the sealant, eliminating all air voids and providing a neat smoothly finished joint. Provide slightly concave joint surface, unless otherwise indicated or recommended by the manufacturer.
 1. Use tool wetting agents only as recommended by the sealant manufacturer.
- D. Protect sealant from damage until it has cured.

3.05 FIELD QUALITY CONTROL

- A. Test Samples:
 1. Where directed by the Owner's Representative, for each 1000 linear feet of joint installed, cut out and carefully remove a 6-inch long sample of undisturbed sealant and joint backer material from the newly installed work. Remove the samples in the presence of the Owner's Representative who will retain them for evaluating and testing.
 2. Reseal cut out areas with the same materials.

- B. Provide Tab Adhesions tests or other field tests as required by the product manufacturer for warranty purposes. Provide a copy of these tests to the Owner.

3.06 CLEANING

- A. Immediately remove misapplied sealant and droppings from metal surfaces with solvents and wiping cloths. On other materials, remove misapplied sealant and droppings by methods and materials recommended in writing by the manufacturer of the sealant material.
- B. After sealants are applied and before skin begins to form on sealant, remove all masking and other protection and clean up remaining defacement caused by the Work.

END OF SECTION

SECTION 09 9800 – WALL COATING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Conditions of the Contract, apply to this Section.

1.02 SECTION INCLUDES

- A. 100 % acrylic aggregate filled coating for above-grade, exterior cementitious surfaces, including surface substrate testing, preparation and application.

1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM)
- B. Federal Specification and Standards

1.04 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Applicator:
 - a. Minimum of 3 years experience in the successful application of acrylic coatings.
 - b. Successful completion of a minimum of 3 projects of similar size to the specified work.
 - 2. Manufacturer: Minimum 5 years experience in manufacturing of paint products and acrylic textured coatings.
- B. Test area: Install a test patch / mock up 3 feet by 3 feet, using the specified coating system at a location on the project site designated by Owner. Obtain Owner's approval of surface preparation, repair, color, texture, finish and workmanship as a standard by which remainder of the project will be judged. Apply material in strict accordance with manufacturer's written application instructions. Mock-up must be approved and accepted prior to start of system application. Maintain mock-up during construction for workmanship comparison. Do not alter, move or destroy mock-up until the work is completed and approved by the Owner's representative. Work which has been accepted by Engineer and Owner, and which is undamaged at time of Substantial Completion may be incorporated into the Work, or if remote from the Work, shall be removed at time of Substantial Completion.

1.05 SUBMITTALS

- A. Submit manufacturer's data sheet, color charts, installation and technical bulletins and MSDS on each product.
- B. Request for approval to bid alternative products shall be made 14 days prior to bid date.

- C. Quality Control Submittals:
 - 1. Provide protection plan of surrounding areas and non-cementitious surfaces.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, handle, and protect products in accordance with provisions in the General Conditions.
- B. Deliver coating system materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Store tightly sealed coating system materials off the ground and away from moisture, direct sunlight, extreme heat and freezing temperatures.

1.07 PROJECT CONDITIONS

- A. Substrate and ambient air temperature shall be a minimum of 40 degrees F (4 degrees C) and rising at application time and remain above 40 degrees F (4 degrees C) for at least 24 hours after application.
- B. Do not apply coatings in snow, rain, fog, mist or at temperatures less than 5 degrees F above the dew point or 2 degrees C above the dew point. Allow surfaces to attain temperature and conditions specified before proceeding with coating application.
- C. Provide protection for plants and vegetation from coating overspray or damage.

1.08 WARRANTY

- A. Submit manufacturer's standard warranty form for specified system. 5-year minimum warranty period of system compatibility with substrate, and weatherability is required prior to system application.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable Wall Coating:
 - 1. Basis-of-Design Manufacture: Sherwin Williams
 - 2. Available Manufacturers: Subject to compliance with requirements, other manufacturers offering products which may be incorporated into the Work.

2.02 MATERIALS

- A. Primer: Basis-of-Design Product: Sherwin Williams Loxon Concrete & Masonry Primer, 1 coat, 200 – 300 sq. ft. / gallon at 2.1 – 3.2 MDFT.
- B. Coating System: Basis-of-Design Product: Sherwin Williams A-100 Exterior Latex, Flat
 - 1. Top Coat Color(s): Match existing color(s) at the different garages where wall coating / painting is required. Where new paint coating is specified on existing

- unpainted surfaces, provide a gray or off-white color that closely matches adjacent natural concrete color. Obtain all color approval by Owner from manufacturer's color range.
2. Coating Application: 350-400 sq. ft. / gallon at 1.2 MDFT per coat, typical, unless otherwise recommended by manufacturer.

2.03 RELATED MATERIALS

- A. Sealant: Provide sealants compatible with the substrate and coating of one of the following types:
 1. Single component Polyurethane Sealant.
 - a. Basis-of-Design Product: Sikaflex-1a
- B. Crack Repair: Elastomeric crack filler.
 - a. Basis-of-Design Product – Sherwin Williams Concrete & Masonry Elastomeric Patches A5W600 Series

2.04 MIXES

- A. Mix coating system materials in accordance with manufacturer's printed recommendations and product technical bulletins. Mix with approved mechanical mixers using light agitation to ensure color uniformity, aggregate disbursement and to minimize air entrapment.
 1. In multi-pail applications, mix contents of each new pail into the partially used pail to ensure color consistency and smooth transitions.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protect adjacent work areas and finish surfaces from damage during coating system application.
- B. Test and clean substrate in accordance with coating system manufacturer's recommendations and the following national standards:
 1. ASTM D 3359 Methods for Measuring Adhesion by Tape Test
 2. ASTM D 4258-83 (1988) Surface Cleaning Concrete for Coating
 3. ASTM D 4259-88 Practice for Abrading Concrete
 4. ASTM D 4261-83 (1988) Practice for Surface Cleaning Concrete Masonry for Coating
 5. ASTM D 4285-83 (1988) Indicating Oil or Water in Compressed Air
 6. ASTM D 4541-85 (1989) Pull-Off Strength of Coatings Using Portable Adhesion Testers

3.02 APPLICATION

- A. Apply primer at rate recommended by coating manufacturer,

- B. Apply 2 coats of acrylic coating at application and spreading rate and thickness recommended by coating manufacturer.
- C. Allow coating to cure a minimum of 2 to 4 hours between applications at a minimum of 70 degrees F. and 50 percent relative humidity, or at time period recommended in writing by manufacturer. Lower temperatures and higher relative humidity will require longer curing times.
- D. Provide finished coating system free of pin holes.
- E. Match approved samples for color, sheen and coverage. Remove, refinish or recoat work not in compliance with contract documents.
- F. See plan notes regarding painting at the garages.
 - 1. Touch-up painting of exterior wall surfaces where damaged by a repair or epoxy injection is the standard for CCP, MPP, WN & WS garages except where specifically noted otherwise. Owner may elect for repainting a full wall panel instead of touch-up painting, but provide this only upon his direction and approval.
 - 2. At 100 West Garage, painting of full exterior panels between architectural grooves or other panel defining elements is required unless otherwise directed and approved by Owner.

3.03 SURFACE PREPARATION

- A. Previously Coated Surfaces: Complete removal of old coatings prior to repainting is not required unless needed for good adhesion of new coating. All surface contamination such as oil, greases, loose paint, mill scale, dirt, foreign matter, rust, mold, mildew, mortar, efflorescence, and sealers must be removed from old paint. Clean and dull the glossy surfaces of old paint films before repainting. Thoroughly wash with an abrasive cleanser to clean and dull in one operation, or wash thoroughly and dull by sanding. Spot prime any bare areas with appropriate primer.
- B. Alternate Cleaning of Previously Coated Surfaces - Water Blasting NACE Standard RP-01-72. Remove oil, grease, dirt, loose rust, loose mill scale, and loose paint by water at pressures of 2,000 to 2,500 psi at a flow of 4 to 14 gallons per minute.
- C. Check for compatibility of new system to existing by applying a test patch of the recommended new coating system, covering at least 3 feet by 3 feet. Allow to dry one week before testing adhesion per ASTM D3359. If the new coating system is incompatible with existing, complete removal of the existing coating is required unless otherwise directed and approved by coating manufacturer providing warranty.
- D. Protect adjacent surfaces not to be re-coated from damage. Repair or recoat damaged surfaces not specified to be recoated.

3.04 CLEANING AND PROTECTION

- A. Remove temporary coverings and protection of adjacent work areas. Remove over spray coating from areas not intended to be coated. Remove construction debris from project site.
- B. Protect applied coating system finish from damage during construction.

END OF SECTION



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