Contract Copies:

- ☐ City Clerk Copy
- ☐ City Copy #2
- ☐ Contractor Copy #1
- ☐ Contractor Copy #2
- ☐ Project Designer Copy

City of Tyler, Texas

Capital Improvements Project (CIP) Contract

CONTRACT DOCUMENTS
FOR

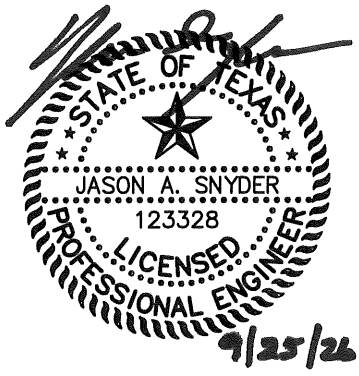
City of Tyler Bid Number 26-072
Project Name 2026 Pedestrian Access Improvements

CITY OFFICIALS:

Mayor	Stuart Hene
City Council	
District 1: Central	Vacant
District 2: West	Petra Hawkins
District 3: Northwest	Shonda Marsh
District 4: Northeast	Clint Childs
District 5: East	Lloyd Nichols
District 6: South	Carleen Dark-Bays
City Manager	Edward Broussard
Director of Engineering Services	Cameron Williams, PE

PREPARED BY:

Project Designer: Kimley-Horn and Associates, Inc.



Firm Registration Number: F-928

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Section 1 ADDENDA

[Insert Addenda Here If Applicable]

Section 2 NOTICE TO BIDDERS

[Insert Notice to Bidders Here]

NOTICE TO BIDDERS

Sealed bids addressed to the City of Tyler, Texas, will be received in the Purchasing Office, 304 North Border, Tyler, Texas 75702, Attention: Purchasing Manager, until 2:00 p.m., on Friday, November 13, 2026 and will be publicly opened immediately afterwards in the City Council Chambers, 212 North Bonner, City Hall, 2nd Floor.

Sealed bids will be for furnishing all necessary materials, equipment, superintendence, and labor for construction of the following improvements for the City of Tyler, Texas:

City of Tyler Bid Number: 26-072
Project Name: 2026 Pedestrian Access Improvements

The project includes: Improvements to pedestrian access infrastructure across five locations in the City of Tyler including W 32nd Street, Elkton Trail, E Rieck Road, Stonebridge Way, and Hawksnest Boulevard. Improvements include but not are not limited to installation of sidewalks, ramps, driveway replacements, and a bus stop pad.

Forms of proposal, contract, bonds, insurance, plans and specifications may be downloaded free of charge (with the option to purchase hard copies) from the Civcast website: www.civcastusa.com starting on Friday, October 2, 2026. You will be notified of Addenda automatically through email if you downloaded your plans and specifications via Civcast.

A Pre-Bid Conference will be held on Friday, October 23, 2026 at 9:00 a.m., located at the Tyler Engineering Services Building, 511 W Locust Street, Tyler, Texas, in the TWU Conference Room. The Pre-Bid Conference will not be mandatory. Questions concerning this project shall be submitted a minimum of 72 hours prior to bid opening through www.civcastusa.com in the Q&A portal. **Direct all questions concerning this project through Civcast.**

Please Note: The successful bidder must maintain required insurance coverage, limits, and endorsements in accordance with Sections 7, 10, and 16 of the Contract Documents.

Please Note: In accordance with House Bill 1295, for certain contracts entered into on or after January 1, 2016, the successful bidder must submit a Certificate of Interested Parties (Form 1295) at the time the signed contract is submitted to the CITY. See Section 19, "Certificate of Interested Parties".

City of Tyler,
Edward Broussard, City Manager

Publish: Tyler Morning Telegraph, Tyler, Texas

PUBLICATION DATES:

First (1st) Publication: October 9, 2026
Second (2nd) Publication: October 16, 2026

Section 3 INSTRUCTIONS TO BIDDERS

3.1 PROPOSAL FORM

The **CITY** will furnish bidders with proposal forms which state the general location and description of the contemplated Work, an approximate estimate of the materials to be furnished and/or Work to be done and upon which bid prices are asked, and the time in which the Work is to be completed. The ***Proposal*** form will provide a space for entering the amount of proposal guaranty.

3.2 EXAMINATION OF PLANS, SPECIFICATIONS AND SITE OF THE WORK

Bidders are advised that the plans, specifications, and other documents on file with the **CITY** will constitute all the information furnished by the **CITY**. Bidders are required, prior to submitting any bid package, to read the specifications, ***Proposal***, contract and bond forms carefully, to visit the site of the Work, to examine carefully local conditions, to inform themselves by their independent research, tests, and investigations of the difficulties to be encountered and assess for themselves the accessibility of the Work and all attending circumstances affecting the cost of doing the Work and time required for its completion, and obtain all information required to make an intelligent bid. No information given by the **CITY** or any officials thereof, other than that shown on plans and contained in the specifications, ***Proposal*** and other documents, will be binding upon the **CITY**. Bidders must rely exclusively upon their own estimates, investigations, tests, and other data which are necessary for full and complete information upon which the bid may be based. It is mutually agreed that submission of a bid package is evidence that the bidder has made the examinations, investigations, and tests required herein. Should a bidder find discrepancies in, or omissions from the plans, specifications or other documents, or be in doubt as to their meaning, the bidder should notify the **CITY** immediately and obtain a clarification prior to submitting any bid package. Claims for additional compensation due to variations between conditions actually encountered in construction and as indicated by the plans will not be allowed.

3.3 PRE-BID CONFERENCE

If a Pre-Bid Conference is scheduled, it will be set a minimum of four (4) working days prior to the bid opening time. If attendance at the Pre-Bid Conference is mandatory due to the size or nature of the project, bidders must attend to ensure their understanding of the project scope as well as the **CITY'S** bidding and contracting requirements; a bidder's absence from a mandatory Pre-Bid Conference shall result in disqualified from bidding.

3.4 ADDENDA

Should a bidder find discrepancies in, or omissions from the plans or specifications or other contract documents, or should he be in doubt as to their meaning, he should at once notify the Project Designer in order that a written addendum may be sent to all bidders. Bidders desiring further information or interpretations must make request for such information to the Project Designer prior to four (4) working days before the time of the bid opening. The person submitting the request will be responsible for its prompt delivery. Appropriate clarification and addenda will be issued at least forty-eight (48) hours prior to the time of the bid opening. Answers to all such requests will be given in writing to all bidders, in addendum form, and all addenda will be bound with and made a part of the contract documents. No other explanation or interpretation will be considered official or binding. Any addenda issued will be mailed, faxed or delivered to each person to whom a set of such documents has been furnished and receipt of same must be

acknowledged by noting the addendum number and date of receipt of said addenda in the space provided on the ***Proposal*** form. The proposal, as submitted by the **CONTRACTOR**, will be so constructed as to include any addenda if such are issued by the Project Designer (prior to forty-eight (48) hours of the bid opening).

3.5 QUANTITIES IN PROPOSAL FORM

The quantities of the Work and materials set forth in the ***Proposal*** form or on the plans approximately represent the Work to be performed and materials to be furnished, and are for the purpose of comparing the bids on a uniform basis. Payment will be made by the **CITY** to the **CONTRACTOR** only for the actual quantities of Work performed or materials furnished in accordance with the plans and specifications, and it is understood that the quantities may be increased or decreased as provided for in Section 16.13.2 "Estimated Quantities", without in any way invalidating the bid prices.

3.6 UNIT PRICES

Unit prices written in words will be the basis for the award of the proposal. Unit prices are used by the **CITY** in scheduling interim payments to the **CONTRACTOR**. The unit price written in words, multiplied by the estimated bid quantity, will be used to determine the item extension and the actual total bid price. All mathematical errors found when the bids are tabulated will be corrected by the **CITY**, and the bids will be revised to reflect the correct item extension and/or total bid price. The corrected total bid amount will then become the official proposal for that **CONTRACTOR**. All bidders will be notified of any errors in their bid, and will be notified and given the opportunity to review the official bid tabulation prior to award recommendation.

The unit prices shown in the proposals must be balanced to reflect actual cost of the item, including a fair and reasonable cost for overhead and profit. If the unit price is considered to be unbalanced, the **CITY** reserves the right to reject the entire proposal. If required by the **CITY**, the **CONTRACTOR** must provide documentation to substantiate that the unit prices reflect fair and reasonable material costs, labor costs, overhead and profit, as determined by industry standards.

3.7 PROJECT COMPLETION TIME

Project completion time will be established according to the requirements of the ***Proposal***. The amount bid for the contract will adequately represent the effort required to complete the project within the specified time on the ***Proposal***.

3.8 ASSIGNMENT AND SUBCONTRACTING

The **CONTRACTOR** will retain full control and will give personal attention to the fulfillment of this contract and will not assign by Power of Attorney or otherwise without the written consent of the **CITY**.

The **CONTRACTOR** may utilize the services of specialty subcontractors on those parts of the Work which, under normal contracting practices, are performed by specialty subcontractors. However, the **CONTRACTOR** shall not employ any subcontractor against whom the **CITY** may have a reasonable objection.

The **CONTRACTOR** must perform, with the **CONTRACTOR'S** own forces, at least thirty percent (30%) of the total contract, based on unit bid prices, unless this requirement is waived by the **CITY**.

Subcontracting any portion or feature of the Work, or materials required in the performance of this contract, shall not relieve the **CONTRACTOR** from his full obligations to the **CITY**, as provided by this AGREEMENT. The **CONTRACTOR** will be fully responsible to the **CITY** for the acts and omissions of subcontractors, and of persons either directly or indirectly employed by them, as the **CONTRACTOR** is for the acts and omissions of persons directly employed by the **CONTRACTOR**.

The **CONTRACTOR** must cause appropriate provisions to be inserted in all subcontracts relative to the Work, to bind subcontractors to the **CONTRACTOR** by the terms of the contract documents, insofar as applicable to the Work of the subcontractors, and to give the **CONTRACTOR** the same power as regards to terminating any subcontract that the **CITY** may exercise over the **CONTRACTOR** under any provision of the contract documents.

In the event that a portion of the Work is subcontracted, the **CITY** will not recognize such subcontractors in supervision of the construction or in making monthly payments for Work accomplished. The **CONTRACTOR** shall be primarily responsible for all Work, and shall receive all payments. Nothing contained in this contract shall create any contractual relation between any subcontractor and the **CITY**.

3.9 OUT-OF-STATE CONTRACTORS

All out-of-state **CONTRACTORS** are required to submit with their bid package a copy of any law from their state of residence which would give a preference to **CONTRACTORS** domiciled in their state over out-of-state **CONTRACTORS**.

3.10 NON-DISCRIMINATORY EMPLOYMENT

The City Council adopted on October 21, 1975, a Resolution requiring non-discriminatory employment by persons who contract with the **CITY** to supply labor, materials, goods, or services to the **CITY**. A copy of the latest City Manager's ***Policy Statement On Equal Employment Opportunity*** shall be included in the contract documents and is on file in the City Clerk's Office. The **CONTRACTOR** and **CONTRACTOR'S** subcontractors or agents must not engage in any discriminatory employment practices.

3.11 WAGE RATES

Wage rates for the various classes of labor involved in the project shall be not less than those prevailing for each class of labor in this area. Time and one-half shall be paid all workers, whether skilled or semi-skilled, for all labor done in excess of forty (40) hours weekly. The inclusion, if any, of a schedule of minimum wage does not relieve the **CONTRACTOR** from responsibility to comply with any State or Federal wage law that may be applicable.

The **CONTRACTOR** shall deduct from all workers' wages social security, withholding tax, and all deductions required by law and shall not make any deductions other than those required or authorized by law.

3.12 PROPOSAL GUARANTY (BID BOND)

Bidders must submit an acceptable Cashier's or Certified Check upon a national or state bank in the amount of five percent (5%) of the total maximum bid payable without recourse to the City of Tyler, Texas, or an acceptable ***Bid Bond*** in the same amount from a reliable surety company,

registered by the State Board of Insurance to conduct business in the State of Texas, and acceptable according to the most recent list of the companies holding Certificates of Authority from the Secretary of the Treasury of the United States, shown on the Treasury List, as a guarantee that the bidder will enter into a contract. The proposal guaranty must be enclosed in the same envelope containing the bid package. Bid packages without the required enclosed check or ***Bid Bond*** will not be considered. All proposal guaranties will be returned un-negotiated, after the bids are opened, except those of the three (3) lowest bidders, which the **CITY** may elect to hold until the successful bidder has executed the contract.

3.13 PREPARATION OF PROPOSAL

The bidder has the option of either submitting the proposal on the forms furnished by the **CITY** in the contract documents, or submitting a computer print-out proposal in lieu of the **CITY'S *Proposal*** form.

Preparation of Proposal on forms supplied by CITY:

All blank spaces in the form must be correctly filled in and the bidder must state the prices, typed or written in ink, both in words and numerals, for which the bidder proposes to do the Work contemplated or furnish the material required. It will be the bidder's responsibility to ensure that all unit prices written in words will be clear and legible. Illegibly written unit prices will result in the proposal being rejected and will not be considered as an irregularity of the proposal. In case of a discrepancy between the unit price written in words, the unit price written in figures, and/or the item extension written in figures, the unit price written in words will govern.

The Total Bid Price must be shown in both numbers and words.

Acknowledgement of all addenda, typed name and title of person signing proposal, authorized signature and date shall also be included.

Preparation of Proposal on computer print-out supplied by bidder:

The computer print-out proposal shall be in spreadsheet format, using software of the bidder's selection. As a minimum, a computer print-out must include the following information: Bid Item Number, Approximate Quantities, Unit of Measure, Bid Item Description, Written Unit Price, Unit Bid Price, Extended Price (Amount), as well as Total Bid Price. Line items must be in the same order as on the **CITY'S *Proposal*** form (see example below).

Bid Item	Quantity	Unit	Item Description and Written Unit Price	Unit Price	Amount

The Total Bid Price must be shown in both numbers and words.

Acknowledgement of all addenda, typed name and title of person signing proposal, authorized signature and date shall also be included.

All computer print-out proposals shall be delivered, in hard copy (i.e. no fax or e-mail submittals) to the designated location, at or before the designated time and include the following certification:

[*Insert bidder's name here*] certifies that the unit prices shown on this complete computer print-out for all the bid items and alternates contained in this proposal are the unit prices intended and that its bid will be tabulated using these unit prices and no other information from this print-out. [*Insert bidder's name here*] acknowledges and agrees that the total bid amount shown will be read as its total bid and further agrees that the official total bid amount will be determined by multiplying the unit bid prices shown in this print-out by the respective estimated quantities shown in the City of Tyler issued proposal and totaling all of the extended amounts.

Typed Name: _____
Title: _____
Signature: _____
Date: _____

3.14 SIGNATURE REQUIREMENTS OF PROPOSAL

1. If a proposal is submitted by an **individual**, the proposal must be signed by the individual or the individual's duly authorized agent.
2. If the proposal is submitted by a **firm, association, partnership or company**, the name and address of each member must be given and the proposal signed by a member of the firm, association, partnership, company or person duly authorized.
3. If the proposal is submitted by a **corporation**, the company or corporate name and address must be given and the proposal signed by an official or duly authorized agent and sealed with the corporate seal. Powers of attorney authorizing agents or others to sign proposals must be properly certified and must be in writing and submitted with the proposal.

3.15 FILING OF BID PACKAGES

No bid package will be considered unless it is received in the Water Utilities Administrative Office, Tyler, Texas within the time limit for receiving bid packages as stated in the advertisement. Each bid package must be in a sealed envelope, plainly marked with the word "proposal", and the project name and time and date the bid package is to be opened as designated in the ***Notice to Bidders***.

The bid package must consist of the following items to be considered complete:
1. Acknowledgment of all addenda
2. ***Proposal***
3. ***Bid Bond***

Any bid package received without each of the required items may be rejected and may not be read at the bid opening.

CONTRACTORS building public streets and drainage, water and/or sewer facilities (not including specialty work such as pipeline camera inspection, interior lining of pipes, etc.) shall have a fully executed ***Contractor's Qualification Statement*** on file with the **CITY** prior to bid opening or include it as part of the **CONTRACTOR'S** bid package. Forms are available for download at https://www.cityoftyler.org/government/departments/engineering-services/engineering-and-construction-standards. **CONTRACTORS** performing any other type of work (i.e., not public streets, drainage or utilities) are not required to have a ***Contractor's Qualification***

Statement on file or include it as part of the bid package unless required by a City Operational Department. Other information from the **CONTRACTOR** such as company history, relevant work experience, project references, etc. may be required in lieu of the ***Contractor's Qualification Statement***.

3.16 WITHDRAWING OR MODIFYING BID PACKAGES

A bidder may withdraw a bid package provided a written request to do so is in the hands of the official indicated in the ***Notice to Bidders*** by the time set for opening of bid packages. A bidder may change the unit prices in the proposal provided a written request to do so is in the hands of the Purchasing Agent prior to the time set for opening of bid packages. Requests by telephone or FAX for changes in bid prices or for withdrawal of bid packages will not be considered. No bid packages will be withdrawn within sixty (60) calendar days after the bid opening.

3.17 OPENING BID PACKAGES

The bid package filed with the Purchasing Agent will be opened at the time stated in the ***Notice to Bidders*** and publicly read aloud, and will thereafter remain on file with the **CITY**. Bidders or their agents are invited to be present.

3.18 IRREGULAR PROPOSALS

Proposals will be considered irregular if they show any omissions, alterations of form, additions, or conditions not called for, unauthorized alternate bids, or irregularities of any kind. However, the **CITY** reserves the right to waive any irregularities and to make the award in the best interests of the **CITY**.

3.19 DISQUALIFICATION OF BIDDERS

Bidders may be disqualified and their bid package not considered for any of the following specific reasons:

1. Reason to believe collusion exists among the bidders.
2. The bidder is in arrears on any existing contract or has defaulted on a previous contract.
3. The bidder is interested in any litigation against the **CITY**.
4. Uncompleted Work which in the judgment of the **CITY** will prevent or hinder the prompt completion of additional Work if awarded.
5. Poor performance in the execution of Work under previous contracts.
6. The bidder is determined to have an unacceptable safety record.
7. Incomplete bid packages (*see* Section 3.15, "Filing of Bid Packages").
8. Proposals in which prices are obviously unbalanced (*see* Section 3.6, "Unit Prices").
9. Proposals which are irregular (*see* Section 3.18, "Irregular Proposals").
10. **CONTRACTORS** not qualified to perform this Work, as determined by the **CITY**.
11. **CONTRACTOR** is not on **CITY'S** Approved Contractors List or ***Contractor's Qualification Statement*** is not on file with the **CITY** prior to bid opening nor included as part of the bid package.
12. Failure to have an authorized agent of the bidder at a Pre-Bid Conference, when attendance is mandatory.

3.20 CONSIDERATION OF PROPOSALS

After bid packages are opened, the proposals will be tabulated for comparison on the basis of the bid prices and quantities shown in the proposal.

3.21 CITY MAY REJECT BID PACKAGES

Until final award of the contract, the **CITY** reserves the right to reject any or all bid packages, to waive technicalities, and to re-advertise for new bids, or proceed to do the Work otherwise in the best interests of the **CITY** (TEX. LOC. GOV'T CODE ANN. §252.043(f); §271.027(a)).

3.22 AWARD OF CONTRACT

After all submitted bid packages have been opened and read aloud, the proposals submitted will be reviewed and tabulated in order from low to high bid. Upon request, a copy of the tabulation will be forwarded to each bidder submitting a qualified bid package.

The award of the contract, if it is awarded, will be to the lowest responsible bidder in accordance with the ***General Conditions***. The tabulated bids, along with the recommendation of the Project Designer shall be placed on the agenda of a regularly scheduled City Council Meeting within sixty (60) calendar days of bid opening.

If the contract is awarded, it will be awarded to the lowest responsible bidder, but the contract may not be awarded to a bidder who is not the **lowest bidder** unless before the award, the **CITY** gives notice to each lower bidder of the proposed award and each lower bidder is given an opportunity to appear before the City Council, or the designated representative of the City Council, and present evidence concerning the bidder's responsibility. TEX. LOC. GOV'T CODE ANN. § 271.027. Notification of the City Council action will be issued to the affected bidders.

3.23 RETURN OF BIDDER'S BOND

As soon as bid prices have been tabulated for comparison of bids, the **CITY** may, at its discretion, return the proposal guaranties accompanying the bid packages which, in its judgment, would not be considered in the award; all other proposal guaranties will be retained by the **CITY** until the required contract and bonds have been executed, after which they will be returned. No proposal guaranties will be returned until at least two (2) calendar days have elapsed from time of opening bid packages.

3.24 SUBMISSION OF POST BID INFORMATION

Upon request by the **CITY**, the selected bidder must, within seven (7) calendar days thereafter, submit the following:

1. A designation of the Work to be performed by the bidder with the bidder's own forces.
2. A list of names of the subcontractors or other persons or organizations (including those who are to furnish materials or equipment fabricated to a special design) proposed for such portions of the Work as may be designated in the bidding documents or, if no portions are so designated, the names of the subcontractors proposed for stated portions of the Work.

The bidder will be required to establish to the satisfaction of the Project Designer and the **CITY** the reliability and responsibility of the proposed subcontractors to furnish and perform such portions of the Work. Prior to the award of the contract, the Project Designer will notify the bidder in writing if either the **CITY** or the Project Designer, after due investigation, has reasonable and substantial objection to any person or organization on such list. Subcontractors and other persons and organizations proposed by the bidder and accepted by the **CITY** and the Project Designer must be used on the Work for which they were proposed and accepted and will not be changed except

with the written approval of the **CITY** and the Project Designer.

3.25 CONTRACT BONDS

The **CONTRACTOR** is required, pursuant to TEX. GOV'T CODE ANN. § 2253.021, and/or the ***Standard Form of Agreement*** to execute all bonds before commencing the work. The contract shall not be in effect until **CONTRACTOR** executes the AGREEMENT and files with the **CITY** a good and sufficient ***Statutory Performance and Maintenance Bond*** **and** ***Payment Bond*** (when applicable) or ***Payment Bond*** on standard forms and in the amount equal to one hundred percent (100%) of the total amount of the contract. Such bonds are furnished by the **CONTRACTOR** and approved by the **CITY**.

A ***Performance and Maintenance Bond and Payment Bond*** shall be required for contract amounts in excess of one hundred thousand dollars ($100,000).

Payment Bond shall be required for all projects regardless of value.

Within fifteen (15) calendar days after written notification of the award of the contract, the **CONTRACTOR** shall submit ***Statutory Performance and Maintenance Bond and Payment Bond*** (when applicable) or ***Payment Bond*** to **CITY** on standard forms as required by the AGREEMENT.

3.26 INSURANCE

CONTRACTOR agrees, at its sole expense, to maintain on a primary basis during the life of the Contract and the performance of Work, required insurance coverages, limits, and endorsements. Insurance required by the AGREEMENT for the **CITY** as additional insured shall be primary insurance and not contributing with any other insurance available to **CITY**.

CONTRACTOR agrees to provide evidence of the required coverages at execution of contract. In the event the **CONTRACTOR** performs any site work, other than testing, then all the insurance required will need to be evidenced prior to commencement of said site work.

3.27 EXECUTION OF CONTRACT

The person(s), partnership, company, firm, association or corporation to whom a contract is awarded must, within fifteen (15) calendar days after receipt of the contract, sign the necessary agreements entering into the required contract with the **CITY**. No contract will be binding on the **CITY** until it has been approved by the City Attorney, executed by the City Manager, attested by the City Clerk, and delivered to the **CONTRACTOR**.

3.28 FAILURE TO EXECUTE CONTRACT

The failure of the bidder to execute the required bonds or to sign the required contract within fifteen (15) calendar days after receipt of the contract will be considered by the **CITY** as an abandonment of the proposal and the **CITY** may annul the award. By reason of the uncertainty of the market prices of materials and labor, and it being impracticable and difficult to determine accurately the amount of damages accruing to the **CITY** by reason of said bidder's failure to execute said bonds and contract within said fifteen (15) calendar days, the proposal guaranty accompanying the proposal will be the agreed amount of damages which the **CITY** will suffer by reason of such failure on the part of the bidder, and will thereupon immediately be forfeited to the **CITY**. The filing of a bid package will be considered as an acceptance of this provision.

3.29 BEGINNING OF WORK

The **CONTRACTOR** will not begin Work until notified in writing by the **CITY** to do so.

Section 4 POLICY STATEMENT ON EEO

Edward Broussard
City Manager

The City of Tyler
Office of the City Manager
P.O. Box 2039
Tyler, Texas 75710-2039

Phone: (903) 531-1253
Fax: (903) 531-1166
www.cityoftyler.org

POLICY STATEMENT ON EQUAL EMPLOYMENT OPPORTUNITY

The City of Tyler takes positive steps to maintain and promote equal opportunity for all individuals. The following policy statement is to keep you advised of the commitment of the City of Tyler, Texas, toward equal employment opportunity and to ensure that none of its personnel policies, procedures or practices unlawfully discriminate against any individual.

You are urged to share this commitment in your employment practices and procedures.
2-1

Need for a policy

Equal opportunity for all people, without regard to race, color, religion, sex, age, disability, national origin or other protected status, is part of the American ideal. Local governments, as a mirror of public policy, can make vital contributions toward this ideal by taking affirmative action to provide equal employment opportunities for all.

Statement of Policy

It is the policy of the City to recruit, employ and provide compensation, promotion and other conditions of employment without regard to race, color, religion, sex, age, national origin, disability, genetic information or status as a Vietnam era or special disabled veteran, recently separated veteran and other protected veteran. The City affirms that employment decisions shall be made only on the basis of a person's ability to perform essential functions of the job. The City shall continually review its employment practices and personnel procedures to take positive steps to ensure that equality of employment opportunity in the City of Tyler, Texas is a fact as well as an ideal.

Application

Rose Ray, (rray@tylertexas.com) (903-531-1103), has been designated as EEO Coordinator with authority and responsibility to develop and recommend strategies to ensure the achievement of the intent of the Policy. This Policy shall be uniformly applied by all levels of management in every department, work unit and other component of the City.

Responsibility

Each department leader and supervisor is responsible for the application of this Policy within his/her component. This includes all supporting programs and practices developed in accordance with this Policy. All employees of the City are responsible for cooperating with any reviews, investigations and other activities initiated within the framework of this Policy. To achieve ultimate effectiveness in the application of this Policy, the cooperation, support and commitment of every employee is essential.

E Broussard

Edward Broussard
City Manager

2/4/2015 **Form 2-1** Page 1 of 1

Section 5 PROPOSAL

[Insert Proposal Here]

Section 5 PROPOSAL

Proposal for CIP Contract
to
The City of Tyler, Texas

Date of Bid: _____

The undersigned, as bidder, in compliance with **CITY'S *Notice To Bidders*** for construction of:

City of Tyler Bid Number: 26-072
Project Name: 2026 Pedestrian Access Improvements

for the City of Tyler, Smith County, Texas, declares that the only person or parties interested in this proposal as principals are those named herein, that this proposal is made without collusion with any other person, firm, or corporation, that he has carefully examined the form of contract, ***Instructions to Bidders***, specifications, and the plans therein referred to, and has carefully examined the locations, conditions, and classes of materials of the proposed work; and agrees that he will provide all the necessary labor, machinery, tools, apparatus, and other items incidental to construction, and will do all the work and furnish all the materials called for in the contract and specifications in the manner prescribed therein and according to the requirements of the Engineer as therein set forth, for the following unit prices.

It is understood that the following quantities of work to be done at unit prices are approximate only, and are intended principally to serve as a guide in evaluating bids.

It is further agreed that the following quantities of work to be done at unit prices and materials to be furnished may be increased or decreased as may be considered necessary, in the opinion of the Engineer, to complete the work fully as planned and contemplated, and that all quantities of work, whether increased or decreased are to be performed at the unit prices set forth below except as provided for in the specifications.

It is further agreed that lump sum prices may be increased by change order to cover additional work ordered by the Engineer, but not when on the plans or required by the specifications, or in accordance with the ***General Conditions*** and ***Special Conditions*** and requirements. Similarly, they may be decreased to cover deletion of work so ordered.

It is further agreed that the unit and lump sum prices shall be shown in words and figures for each item listed in this proposal, and in the event of discrepancy, the words shall control, and should the bid price on any item be completely omitted, the proposal will be considered incomplete, and the proposal will be disqualified. It is understood and agreed that the work is to be completed in full either:

1) ☒ within one hundred twenty, (120) calendar days after the date specified in the written ***Notice to Proceed,*** or
2) ☐ on or before the **mandatory completion** date of _____,

subject to such extensions of time as are provided by the ***General Conditions***.

Accompanying this proposal is a ☐ ***Bid Bond***, ☐ Certified Check, or ☐ Cashier's Check payable to the City of Tyler for:

AMOUNT:

_____ Dollars

and _____ Cents

$ _____

The undersigned certifies that the bid prices contained in this proposal have been carefully checked and are submitted as correct and final.

Receipt is hereby acknowledged of the following addenda to the Contract Documents:

ADDENDUM NO. 1	_____	Received	_____
ADDENDUM NO. 2	_____	Received	_____
ADDENDUM NO. 3	_____	Received	_____
ADDENDUM NO. 4	_____	Received	_____
ADDENDUM NO. 5	_____	Received	_____

Bidder	Street Address
Signature	City, State, Zip
Printed Name	Telephone Number
Title	Date

BASE BID:

Bid Item	Quantity	Unit	Item Description and Written Unit Price	Unit Price	Amount
1	1	LS	Mobilization, Bonds, and Insurance, for Dollars Cents	$	$
2	16,930	SF	4-Inch Concrete Sidewalk, for Dollars Cents	$	$
3	216	SF	6-Inch Concrete Sidewalk, for Dollars Cents	$	$
4	5,090	SF	6-Inch Concrete Driveway with Curb, for Dollars Cents	$	$
5	100	SF	6-Inch Concrete Bus Stop Pad, for Dollars Cents	$	$
6	111	LF	Concrete Drop Wall for Sidewalk, for Dollars Cents	$	$
7	332	LF	Concrete Sidewalk Curb (6-Inch), Poured Integrally with Sidewalk, for Dollars Cents	$	$
8	37	LF	Concrete Sidewalk Curb (7 to 12-Inches), Poured Integrally with Sidewalk, for Dollars Cents	$	$

Bid Item	Quantity	Unit	Item Description and Written Unit Price	Unit Price	Amount
9	5	EA	4’ Wide Concrete Curb Ramp, for Dollars Cents	$	$
10	6	EA	5’ Wide Concrete Curb Ramp, for Dollars Cents	$	$
11	7	EA	6’ Wide Concrete Curb Ramp, for Dollars Cents	$	$
12	10	EA	6’ Driveway Ramp, for Dollars Cents	$	$
13	1	EA	Rehabilitate Existing Non-Compliant Concrete Curb Ramp, for Dollars Cents	$	$
14	121	LF	Concrete Curb and Gutter, for Dollars Cents	$	$
15	1	EA	Concrete Sidewalk Underdrain, for Dollars Cents	$	$
16	433	LF	Pedestrian Crosswalk Striping (Longitudinal Bar), for Dollars Cents	$	$
17	5	EA	Stop Line Striping, for Dollars Cents	$	$

Bid Item	Quantity	Unit	Item Description and Written Unit Price	Unit Price	Amount
18	4	EA	Pedestrian Crosswalk Signage, for Dollars Cents	$	$
19	7,717	SF	Remove and Dispose of Existing Pavement, for Dollars Cents	$	$
20	95	LF	Remove and Dispose of Existing Concrete Curb and Gutter, for Dollars Cents	$	$
21	1	LS	Site Grading, for Dollars Cents	$	$
22	26,134	SF	Block Sod to Match Existing Site Sod, for Dollars Cents	$	$
23	1	LS	Irrigation Repair, for Dollars Cents	$10,000.00	$10,000.00
24	1	LS	Tree Removal and Protection Plan and Implementation, for Dollars Cents	$	$
25	1	LS	Traffic Control Plan and Implementation, for Dollars Cents	$	$

Bid Item	Quantity	Unit	Item Description and Written Unit Price	Unit Price	Amount
26	1	LS	Stormwater Pollution Prevention Plan and Implementation, for		
			Dollars		
			Cents	$	$
27	1	LS	Owner Construction Contingency, for		
			Dollars		
			Cents	$50,000.00	$50,000.00

BID SUMMARY

BASE BID TOTAL

_____ Dollars

and _____ Cents

$ _____

STATEMENT OF MATERIALS AND OTHER CHARGES

For purposes of complying with TEX. TAX CODE ANN. Title 2., Subtitle E., Chapter 151, Subchapter C. § 151.056; Subchapter H. § 151.301, § 151.309, § 151.311, the **CONTRACTOR** agrees that the charges for any material incorporated into the project in excess of the estimated quantity provided for herein will be no less than the invoice price for such material to the **CONTRACTOR**.

Value of Materials Incorporated Into the Project:	$
Value of All Other Charges:	$
*Total:	$

* This statement may be submitted with ***Proposal*** and the total must agree with the **total bid** figure shown in the Bid Summary section above.

Section 6 BID BOND

Check Here if this Section is NOT Used ☐

THE STATE OF TEXAS §
§ **BID BOND**
COUNTY OF SMITH §

THAT, _____ [*contractor*], as **PRINCIPAL**, and _____ [*surety*], as **SURETY**, acknowledge their indebtedness and are held and firmly bound unto the City of Tyler (**CITY**), Texas in Smith County, as **OBLIGEE**, in the amount of _____ [*insert figure using written words*], ($_____) [*insert numerical figure*] payable to the City of Tyler, Texas for the payment of which, the said **PRINCIPAL** (Contractor) and **SURETY** bind themselves, and their heirs, administrators, executors, successors, legal representatives, and assigns, jointly and severally, firmly by these presents.

PRINCIPAL (Contractor) is about to submit to **OBLIGEE** (City) a bid or proposal for:

City of Tyler Bid Number	26-072
Project Name	2026 Pedestrian Access Improvements

in accordance with plans and specifications filed in **OBLIGEE'S** (City's) office and under the Request for Quotation (RFQ) / Request for Proposal (RFP) / Invitation to Bid therefor.

NOW THEREFORE:
THE CONDITION OF THIS OBLIGATION IS THAT IF:

1) the bid or proposal is rejected, or
2) the bid or proposal of **PRINCIPAL** (Contractor) is accepted; and
    a. the contract for the work is awarded to **PRINCIPAL** (Contractor) by **OBLIGEE** (City),
    b. **PRINCIPAL** (Contractor) enters into a written contract in the form of contract provided in these contract documents (properly completed in accordance with the bid),
    c. **PRINCIPAL** (Contractor) furnishes a ***Performance and Maintenance Bond*** for the performance of the work as required by law and/or the AGREEMENT,
    d. **PRINCIPAL** (Contractor) furnishes a ***Payment Bond*** for the payment of all persons performing labor or furnishing materials in connection therewith as required by law and/or the AGREEMENT, and
    e. **PRINCIPAL** (Contractor) in all other respects performs the agreement created by the acceptance of the bid,

then this obligation will be null and void; otherwise, subject to the following limitation, it will remain in full force and effect.

The limitation referred to above is that surety, in any event, will not be liable for a greater amount than the difference between the amount of principal's bid or proposal and the lowest amount in excess of that bid or proposal for which **CITY** may be able to award the contract within a reasonable time.

The **SURETY**, for value received, hereby stipulates and agrees that the obligations of said **SURETY** and its Bond shall be in no way impaired or affected by any extension of the time within which the **OBLIGEE** (City) may accept such bid; and said **SURETY** does hereby waive notice of any such extension.

I (WE) CERTIFY that the **SURETY** is registered by the State Board of Insurance to conduct business in the State of Texas, and acceptable according to the latest list of companies holding Certificates of Authority from the Secretary of the Treasury of the United States, shown on the Treasury List.

I (WE) CERTIFY that the **SURETY** has reviewed the financial condition of the **PRINCIPAL** and the **PRINCIPAL'S** qualification to perform the work required by this project.

IN WITNESS WHEREOF the **PRINCIPAL** (Contractor) and **SURETY** have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, the day and year set forth below.

Signed this _____ day of _____, 20_____.

BOND NUMBER: _____

PRINCIPAL (Contractor)	**SURETY**
Printed Name of Principal	Printed Name of Surety
Physical Address	Physical Address
Mailing Address	Mailing Address
Telephone Number	Telephone Number
By: Signature	**By:** Signature
Title	Title
	SURETY'S SEAL:

******* NOTE *******

If signed by an Attorney-in-Fact a copy of the Power of Attorney shall be attached, or

If signed by an officer of the Surety Company a certified extract from the by-laws showing that this person has authority to sign obligation shall be attached.

Section 7 STANDARD FORM OF AGREEMENT

THE STATE OF TEXAS	§	**STANDARD FORM OF AGREEMENT**
	§	**FOR**
	§	
	§	**CITY OF TYLER**
	§	
COUNTY OF SMITH	§	**CAPITAL IMPROVEMENT PROJECT (CIP)**

City of Tyler Bid Number 26-072
Project Name 2026 Pedestrian Access Improvements

THIS AGREEMENT, made and entered into this _____ day of _____, 20_____, by and between the City of Tyler, Texas, of the County of Smith and State of Texas, hereinafter termed "**CITY**", acting through the City Manager, and _____ [*insert name of Contractor*], of the City of _____, the County of _____, the State of Texas, hereinafter termed "**CONTRACTOR**".

THAT FOR AND IN CONSIDERATION of the payments and mutual covenants set forth in this ***Standard Form of Agreement*** and under the conditions expressed in the contract documents and in the bond bearing even date herewith, **CONTRACTOR** hereby agrees with **CITY** as follows:

WITNESSETH:

7.1 DESCRIPTION OF WORK

CONTRACTOR will perform all the work required by the contract documents and said work shall be done under the supervision of the representative of the **CITY**. The work will consist of the completion of construction of certain improvements and all extra work in connection therewith, in accordance with the prices and conditions stated in the contract documents and at **CONTRACTOR'S** cost and expense to furnish all materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said construction.

7.1.1 If the Project is a "civil works" project, as defined by Sec. 2269.351 of Tex. Gov. Code Ann., then the *PROCEDURE FOR CORRECTING CONSTRUCTION DEFECTS* herein does NOT apply. "**Civil works"** projects are those related to roads, streets, bridges, utilities, water supply projects, water plants, waste water plants, water distribution and wastewater conveyance facilities, desalination projects, wharves, docks, airport runways and taxiways, storm drainage, flood control projects and transit projects.

7.1.2 If the Project is related to "public works" projects or construction contracts affecting City-owned buildings, then this contract IS SUBJECT TO ADDITIONAL PROVISIONS FOUND IN the *PROCEDURE FOR CORRECTING CONSTRUCTION DEFECTS* herein. "Public Works" is defined by Tex. Gov. Code Ann., Sec. 2269.001 (6) as a contract for constructing, altering, or repairing a public building or carrying out any public work.

7.1.3 If the ***PROCEDURE FOR CORRECTING CONSTRUCTION DEFECTS*** is applicable

and there is a conflict between any other clause in this Agreement and the ***PROCEDURE,*** the ***PROCEDURE*** shall control.

7.2 CONTRACT DOCUMENTS

The contract documents constitute the entire AGREEMENT between the **CITY** and **CONTRACTOR**, and all are as fully a part of the AGREEMENT as if attached to or repeated in this ***Standard Form of Agreement***.

The contract documents are as follows:

- ***Notice to Bidders,***
- All addenda issued prior to execution of this ***Standard Form of Agreement***,
- ***Instructions to Bidders***,
- **CITY** ***Policy Statement on Equal Opportunity Employment***,
- ***Proposal***,
- Bid Bond and Special Bonds (if any),
- ***Standard Form of Agreement,***
- ***Statutory Performance and Maintenance Bond*** and ***Payment Bond*** (if applicable)***,***
- ***Payment Bond,***
- Certificate(s) of Insurance,
- Endorsements,
- ***Contractor's Affidavit of Bills Paid and Waiver and Lien Releases***,
- ***Procedure for Correcting Construction Defects*** (if applicable)
- ***General Conditions***,
- ***Special Conditions,***
- **CITY** specifications governing water and/or sanitary sewer installation within the **CITY** titled ***City of Tyler Standard Specifications,***
- ***Trench Safety Systems,***
- Plans and other drawings and printed or written explanatory matter thereof, and
- All field orders and change orders issued after execution of this ***Standard Form of Agreement***.

In case of conflict between any of the contract documents, priority of interpretation shall be in the following order:

1. Signed ***Standard Form of Agreement***,
2. ***Performance and Maintenance Bond and Payment Bond*** (if applicable) and/or ***Payment Bond***,
3. Special Bonds (if any),
4. Proposal,
5. ***Special Conditions***,
6. ***Special Specifications,***
7. ***City of Tyler Standard Specifications***,
8. ***Technical Specifications***,
9. Plans, and
10. ***General Conditions***.

7.3 TIME OF COMMENCEMENT AND COMPLETION

CONTRACTOR hereby agrees to commence work within ten (10) calendar days after the date specified in the ***Notice to Proceed***, to diligently pursue the work without extended interruption and to **complete in full** the same either:

1) ☒ within one hundred twenty, (120) calendar days after the date specified in the written ***Notice to Proceed,*** or
2) ☐ on or before the **mandatory completion** date of Enter mandatory completion date,

subject to such extensions of time as are provided by the ***General Conditions***.

7.4 CONTRACT PRICE

CITY agrees to pay to the **CONTRACTOR** the contract amount of _____ [*insert figure using written words*], ($_____) [*insert numerical figure*] such payments to be subject to the ***General Conditions*** of the contract.

7.5 BONDS

The **CONTRACTOR** is required, pursuant to TEX. GOV'T CODE ANN. § 2253.021, and/or this ***Standard Form of Agreement*** to execute all bonds before commencing the work. The contract shall not be in effect until **CONTRACTOR** executes the AGREEMENT and files with the **CITY** a good and sufficient ***Statutory Performance and Maintenance Bond*** **and** ***Payment Bond*** (when applicable) or ***Payment Bond*** on standard forms and in the amount equal to one hundred percent (100%) of the total amount of the contract. Such bonds are furnished by the **CONTRACTOR** and approved by the **CITY**.

A ***Performance and Maintenance Bond and Payment Bond*** shall be required for contract amounts in excess of one hundred thousand dollars ($100,000).

Payment Bond shall be required for all projects regardless of value.

Within fifteen (15) calendar days after written notification of the award of the contract, the **CONTRACTOR** shall submit ***Statutory Performance and Maintenance Bond and Payment Bond*** (when applicable) or ***Payment Bond*** to **CITY** on standard forms as required by the AGREEMENT.

See Section 16.7, "Bonds" in the ***General Conditions*** for a description and explanation of the bonds required for this AGREEMENT.

7.6 INSURANCE

CONTRACTOR agrees, at its sole expense, to maintain on a primary basis during the life of this Contract and the performance of Work hereunder, insurance coverages, limits, and endorsements. Insurance required by this AGREEMENT for the **CITY** as additional insured shall be primary insurance and not contributing with any other insurance available to **CITY**.

CONTRACTOR agrees to provide evidence of the required coverages at execution of contract. In the event the **CONTRACTOR** performs any site work, other than testing, then all the insurance required by AGREEMENT will need to be evidenced prior to commencement of said site work.

See Section 16.8, "Insurance Required" in the ***General Conditions*** for the contractual types and amounts of insurance and endorsements required for this AGREEMENT.

See Section 10, "Certificate(s) of Insurance" for a chart and checklist providing a summary and overview of the insurance requirements.

See Section 11, "Endorsements" for a chart providing a summary and overview of the endorsement requirements.

In case of conflict between Section 10 and/or Section 11 and/or the insurance requirements described in the ***General Conditions***, priority of interpretation shall be given first to the ***General Conditions***.

7.7 CITY AND OTHERS INDEMNIFIED

CONTRACTOR AGREES TO INDEMNIFY, HOLD HARMLESS AND DEFEND THE CITY, ITS PROJECT DESIGNER, AND THEIR OFFICERS, DIRECTORS, EMPLOYEES, AND AGENTS, (COLLECTIVELY REFERRED TO AS THE "INDEMNIFIED PARTIES") FROM AND AGAINST ALL LIABILITY FOR ANY AND ALL CLAIMS, LIENS, DEMANDS, AND DAMAGES OF EVERY KIND FOR INJURIES TO PERSONS INCLUDING DEATH, PROPERTY DAMAGE INCLUDING LOSS OF USE, AND EXPENSES INCLUDING ATTORNEY'S FEES (COLLECTIVELY, THE "HARM") ARISING OUT OF OR RESULTING FROM THE PERFORMANCE OF THIS AGREEMENT, BUT ONLY PROPORTIONALLY TO THE EXTENT THAT THE HARM WAS CAUSED BY THE NEGLIGENT OR INTENTIONAL ACTS OR OMISSIONS OF (I) CONTRACTOR, (II) ANY PERSON OR ENTITY ACTING BY OR THROUGH THE AUTHORITY OF THE CONTRACTOR IN FURTHERANCE OF THE PERFORMANCE OF THIS CONTRACT, AND/OR (III) ANY SUBCONTRACTOR, OR ANYONE FOR WHOSE ACTS THE CONTRACTOR OR SUBCONTRACTOR IS LIABLE, REGARDLESS OF WHETHER OR NOT SUCH HARM OCCURRED ON PROPERTY BELONGING TO THE CITY. THE CONTRACTOR'S INDEMNIFICATION OBLIGATION PROVIDED HEREIN SHALL SURVIVE THE EXPIRATION OR TERMINATION OF THIS AGREEMENT. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE CONTRACTOR'S INDEMNIFICATION OBLIGATIONS PROVIDED HEREIN SHALL SURVIVE AND BE ENFORCEABLE BY THE INDEMNIFIED PARTIES (SUBJECT TO THE PROPORTIONALITY LIMITATIONS SET FORTH IN THIS PARAGRAPH) DESPITE A DETERMINATION OR FINDING OF CONCURRENT, COMPARATIVE, OR CONTRIBUTORY NEGLIGENCE OF EITHER THE CONTRACTOR OR THE INDEMNIFIED PARTIES.

CONTRACTOR agrees to comply with the Worker's Compensation Act of the State of Texas and to pay or cause to be paid all compensation, medical or hospital bills which may become due and payable thereunder, and to indemnify, hold harmless and defend **CITY** from and against any and all liability by reason of injury of employees of **CONTRACTOR**. **CONTRACTOR** shall furnish **CITY** with a Certificate from its Insurance Carrier evidencing **CONTRACTOR'S** compliance therewith (*see* Section 16.8, "Insurance Required").

CONTRACTOR AGREES TO COMPLY WITH ABOVE REQUIREMENTS IN CONNECTION WITH SERVICES AND/OR WORK COVERED UNDER THIS PROJECT.

7.8 VENUE

This agreement shall be construed in accordance with the laws of the State of Texas and the ordinances of the City of Tyler. Venue for any action brought to enforce or interpret this agreement

shall lie exclusively in a court of competent jurisdiction in Smith County, Texas for actions in state court, and in the Eastern District of Texas, Tyler Division, for actions in federal court.

7.9 AFFIDAVIT OF BILLS PAID AND FINAL PAYMENT TO CONTRACTOR

Pursuant to TEX. PROP. CODE ANN. § 53.085(a) and this ***Standard Form of Agreement*** **CONTRACTOR** shall furnish a ***Contractor's Affidavit of Bills Paid*** and executed ***Waiver and Lien Release forms*** to **CITY stating** that the work for the construction of said project has been satisfactorily completed; and that all bills for materials, supplies, apparatus, fixtures, machinery, labor, subcontractors, laborers and materialmen used in connection with the construction of this project have been fully paid.

Upon receipt of the notification of completion, the Project Designer shall proceed to make final measurements and prepare a final statement of the value of all work performed and materials furnished under the terms of the AGREEMENT and shall certify same to **CITY**, who shall pay to the **CONTRACTOR**, the balance due the **CONTRACTOR** under the terms of this ***Standard Form of Agreement***, provided he has fully performed his contractual obligations under the terms of the AGREEMENT; and said payment shall become due in any event upon said performance by the **CONTRACTOR**. Neither the ***Certificate of Acceptance*** nor the final payment, nor any provision in the contract documents, shall relieve the **CONTRACTOR** of the obligation for fulfillment of any warranty which may be required.

7.10 RESERVED

7.11 NOTICES

Any notices provided under this ***Standard Form of Agreement*** shall occur in writing. For purposes of such notice, the addresses of the parties, until changed by written notice, shall be:

CITY'S CONTACT:		**CONTRACTOR'S CONTACT:**	
Name	Jason Adair	Name	
Address	City of Tyler	Address	
	P.O. Box 2039		
	Tyler, TX 75710		
Phone	(903) 531-1136	Phone	
FAX	(903) 531-1240	FAX	
E-mail	jadair@tylertexas.com	E-mail	

CITY and **CONTRACTOR** hereby bind themselves, their heirs, successors and assigns and representatives for the faithful and full performance of the terms and provisions of this contract, jointly and severally.

IN WITNESS WHEREOF, the parties to these presents have executed this ***Standard Form of Agreement*** in the year and day first above written.

FOR THE CITY OF TYLER, TEXAS:

ATTEST:

By: _____
City Manager

By: _____
City Clerk

Edward Broussard
Printed Name

Cassandra Brager
Printed Name

APPROVED:

RECOMMENDED:

By: _____
City Attorney's Office

By: _____
Department Leader

_____
Printed Name

_____
Printed Name

City of Tyler Bid Number 26-072
Project Name 2026 Pedestrian Access Improvements

AGENDA ITEM NUMBER: _____
DATE CITY COUNCIL APPROVED: _____

FOR THE CONTRACTOR:

By: _____

_____
Title

_____
Printed Name

THE STATE OF TEXAS §
§ **CONTRACTOR'S ACKNOWLEDGEMENT**
COUNTY OF SMITH §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared _____, who is known to me, or who was proved to me through _____ to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 20____.

_____
Notary Public In and For The State of Texas

My Commission Expires: _____ _____
Notary's Printed Name

Section 8 PERFORMANCE AND MAINTENANCE BOND AND PAYMENT BOND

Check Here if this Section is NOT Used ☐

THE STATE OF TEXAS	§	**STATUTORY**
	§	**PERFORMANCE AND MAINTENANCE BOND**
	§	**AND**
	§	**PAYMENT BOND**
	§	
	§	
	§	**PURSUANT TO**
	§	
	§	**CITY POLICY, AGREEMENT**
	§	**AND/OR**
COUNTY OF SMITH	§	**TEX. GOV'T CODE, TITLE 10, CHAPTER § 2253**

THAT, _____ [*contractor*], as **PRINCIPAL**, and _____ [*surety*], a corporation organized and existing under the laws of the State of Texas, licensed to do business in the State of Texas and admitted to write bonds, as **SURETY**, are held and firmly bound unto the City of Tyler (**CITY**), Texas in Smith County, as **OBLIGEE**, in the amount of _____ [*insert figure using written words*], ($_____) [*insert numerical figure*] payable to the City of Tyler, Texas for the payment of which, the said **PRINCIPAL** (Contractor) and **SURETY** bind themselves, and their heirs, administrators, executors, successors, legal representatives, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the **PRINCIPAL** (Contractor) has entered into a certain contract with the **OBLIGEE** (City), dated the _____ day of _____, 20_____ [*insert date from **Standard Form of Agreement***], for:

City of Tyler Bid Number	26-072
Project Name	2026 Pedestrian Access Improvements

which contract is hereby referred to as the AGREEMENT and made a part hereof as fully and to the same extent as if copied at length herein;

WHEREAS, the performance bond guarantees the **OBLIGEE** (City) that the **PRINCIPAL** (Contractor) will fully and faithfully execute the Work and performance of the AGREEMENT according to its terms including price and time and is solely for the protection of the **OBLIGEE** (City) in the amount of the contract and conditioned on the faithful performance of the work in accordance with the plans, specifications, and contract documents;

WHEREAS, pursuant to TEX. GOV'T CODE ANN. § 2253.021 and the ***Standard Form of Agreement,*** a performance bond is required when the contract amount is in excess of one hundred thousand dollars ($100,000);

WHEREAS, the maintenance bond guarantees the **OBLIGEE** (City) that the **PRINCIPAL** (Contractor) will guarantee the Work against faulty workmanship and/or materials for a specified period of time following completion of the AGREEMENT;

WHEREAS, pursuant to **CITY** policy and the ***Standard Form of Agreement*** a maintenance bond shall accompany the performance bond for the **PRINCIPAL** (Contractor) to guarantee the Work against faulty workmanship and/or materials for a maintenance period of a specified period of one (1) year after the date of final acceptance of the Work;

WHEREAS, the payment bond guarantees the **OBLIGEE** (City) that the **PRINCIPAL** (Contractor) shall pay all bills for materials and labor for work provided for in said AGREEMENT and is solely for the protection and use of payment bond beneficiaries who have a direct contractual relationship with the prime contractor or a subcontractor to supply public work, labor or material and in the amount of the contract;

WHEREAS, pursuant to TEX. GOV'T CODE ANN. § 2253.021, for contracts in excess of $25,000 a payment bond is required; however, pursuant to **CITY** Policy and the ***Standard Form of Agreement*** a payment bond shall be required for ALL projects regardless of value;

WHEREAS, the **PRINCIPAL** (Contractor), is required by law, pursuant to TEX. GOV'T CODE ANN. § 2253.021 and/or the ***Standard Form of Agreement,*** to execute all bonds before commencing the Work.

NOW THEREFORE:

THE FIRST (1st) CONDITION OF THIS OBLIGATION IS SUCH, that if the said **PRINCIPAL** shall faithfully **perform** the Work required by and in accordance with the AGREEMENT then this obligation shall be null and void; otherwise it shall remain in full force and effect;

THE SECOND (2nd) CONDITION OF THIS OBLIGATION IS SUCH, that if the said **PRINCIPAL** (Contractor) shall faithfully perform the Work required by and in accordance with the AGREEMENT including any performance required of said **PRINCIPAL** (Contractor) for a **maintenance** period of one (1) year after the date of final acceptance of the work, then this obligation shall be null and void; otherwise it shall remain in full force and effect;

THE THIRD (3rd) CONDITION OF THIS OBLIGATION IS SUCH, that if the said **PRINCIPAL** (Contractor) shall **pay** all claimants supplying the labor and material to him or a subcontractor in the prosecution of the Work provided for in said AGREEMENT, then this obligation shall be null and void; otherwise it shall remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the TEX. GOV'T CODE ANN. and all liabilities on this bond shall be determined in accordance with the provision, conditions and limitations of said Chapter to the same extent as if it were copied at length herein.

SURETY, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the AGREEMENT, or to the Work performed hereunder, or the plans, specifications, or drawings accompanying the same, shall in anywise affect its obligation on this bond, and **SURETY** does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the AGREEMENT, or to the Work performed thereunder.

The undersigned **SURETY** company represents that it is duly qualified to do business in Texas and is registered by the State Board of Insurance to conduct business in the State of Texas, and acceptable according to the latest list of the companies holding Certificates of Authority from the Secretary of the Treasury of the United States and hereby designates _____ [*insert Agent's name*], an agent in Smith County to whom any requisite notices may be delivered and on whom service of process may be had in matters arising out of such suretyship and to establish venue in Smith County, Texas.

IN WITNESS WHEREOF, the said **PRINCIPAL** (Contractor) and **SURETY** have signed and sealed this instrument this_____ day of _____, 20_____.

DATE OF BONDS MUST NOT BE PRIOR TO DATE ON *Standard Form of Agreement*

BOND NUMBER: _____

PRINCIPAL (Contractor)	**SURETY**
Printed Name of Principal	Printed Name of Surety
Physical Address	Physical Address
Mailing Address	Mailing Address
Telephone Number	Telephone Number
By: Signature	**By:** Signature
Title	Title
	SURETY'S SEAL:

******* NOTE *******

If signed by an Attorney-in-Fact a copy of the Power of Attorney shall be attached, or

If signed by an officer of the Surety Company a certified extract from the by-laws showing that this person has authority to sign obligation shall be attached.

Section 9 PAYMENT BOND ONLY

Check Here if this Section is NOT Used ☐

THE STATE OF TEXAS	§	**PAYMENT BOND**
	§	
	§	
	§	**PURSUANT TO**
	§	
	§	**CITY POLICY, AGREEMENT**
	§	**AND/OR**
COUNTY OF SMITH	§	**TEX. GOV'T CODE, TITLE 10, CHAPTER § 2253**

THAT, _____ [*Contractor*], as **PRINCIPAL**, and _____ [*surety*], a corporation organized and existing under the laws of the State of Texas, licensed to do business in the State of Texas and admitted to write bonds, as **SURETY**, are held and firmly bound unto the City of Tyler (**CITY**), Texas in Smith County, as **OBLIGEE**, in the amount of _____ [*insert figure using written words*], ($_____) [*insert numerical figure*] payable to the City of Tyler, Texas for the payment of which, the said **PRINCIPAL** (Contractor) and **SURETY** bind themselves, and their heirs, administrators, executors, successors, legal representatives, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the **PRINCIPAL** (Contractor) has entered into a certain contract with the **OBLIGEE** (City), dated the _____ day of _____, 20_____ [*insert date from **Standard Form of Agreement***], for:

City of Tyler Bid Number	26-072
Project Name	2026 Pedestrian Access Improvements

which contract is hereby referred to as the AGREEMENT and made a part hereof as fully and to the same extent as if copied at length herein;

WHEREAS, the payment bond guarantees the **OBLIGEE** (City) that subcontractors and suppliers will be paid monies that they are due from the **PRINCIPAL** (Contractor) and is solely for the protection and use of payment bond beneficiaries who have a direct contractual relationship with the prime contractor or a subcontractor to supply public work, labor or material and in the amount of the contract;

WHEREAS, pursuant to TEX. GOV'T CODE ANN. § 2253.021, for contracts in excess of $25,000 a payment bond is required; however, pursuant to **CITY** Policy and the ***Standard Form of Agreement*** a payment bond shall be required for ALL projects regardless of value;

WHEREAS, the **PRINCIPAL** (Contractor), is required, pursuant to TEX. GOV'T CODE ANN. § 2253.021, and/or the ***Standard Form of Agreement,*** to execute the payment bond before commencing the Work.

NOW THEREFORE:

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said **PRINCIPAL** (Contractor) shall **pay** all claimants supplying the labor and material to him or a subcontractor in the prosecution of the Work provided for in said AGREEMENT, then this obligation shall be null and void; otherwise it shall remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of TEX. GOV'T CODE ANN. Chapter 2253 and all liabilities on this bond shall be determined in accordance with the provision, conditions and limitations of said Chapter to the same extent as if it were copied at length herein.

SURETY, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the AGREEMENT, or to the Work performed hereunder, or the plans, specifications, or drawings accompanying the same, shall in anywise affect its obligation on this bond, and **SURETY** does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the AGREEMENT, or to the Work performed thereunder.

The undersigned **SURETY** company represents that it is duly qualified to do business in Texas and is registered by the State Board of Insurance to conduct business in the State of Texas, and acceptable according to the latest list of the companies holding Certificates of Authority from the Secretary of the Treasury of the United States and hereby designates _____ [*insert Agent's name*], an agent in Smith County to whom any requisite notices may be delivered and on whom service of process may be had in matters arising out of such suretyship and to establish venue in Smith County, Texas.

IN WITNESS WHEREOF, the said **PRINCIPAL** (Contractor) and **SURETY** have signed and sealed this instrument this _____ day of _____, 20_____.

DATE OF BONDS MUST NOT BE PRIOR TO DATE ON *Standard Form of Agreement*

BOND NUMBER: _____

PRINCIPAL (Contractor)	**SURETY**
Printed Name of Principal	Printed Name of Surety
Physical Address	Physical Address
Mailing Address	Mailing Address
Telephone Number	Telephone Number
By:	**By:**
Signature	Signature
Title	Title
	SURETY'S SEAL:

******* NOTE *******

If signed by an Attorney-in-Fact a copy of the Power of Attorney shall be attached, or

If signed by an officer of the Surety Company a certified extract from the by-laws showing that this person has authority to sign obligation shall be attached.

Section 10 CERTIFICATE(S) OF INSURANCE

[Certificate of Liability Insurance Shall Be Inserted Here]

INSURANCE COVERAGE REQUIRED * Endorsement Required	
TYPE	**AMOUNT**
1) COMMERCIAL GENERAL LIABILITY * Policy shall include (but not limited to) the following: a) Products - Completed Operations b) Independent Contractors c) Broad Form Property Damage d) X-C-U Coverage X = Explosion Hazard C = Collapse Hazard U = Underground Damage e) Contractual Liability or Cross Liability	Not Less than: **$1,000,000** (1 million) Each Occurrence **$2,000,000** (2 million) General Aggregate **Per Project** Any Self-Insured-Retention or Deductible shall not exceed $25,000.
2) BUSINESS AUTOMOBILE LIABILITY Policy shall include (but not limited to) bodily injury and property damage liability for the following: a) Any Auto; OR b) All Owned Autos, and c) Hired Autos, and d) Non-Owned Autos.	Not Less than: **$1,000,000** (1 million) Each Occurrence
3) ♦ CONTRACTOR'S PROFESSIONAL ERRORS & OMISSIONS LIABILITY Policy shall include (but not limited to) the following: a) A minimum three (3) year Discovery (tail) Reporting period, and b) A Retroactive Date that equals or precedes the effective date of the Contract, or the performance of services hereunder.	♦ ☐ Check Here If Contract Includes Professional/Design Liability Exposures or If Coverage is otherwise required by a City Operational Department Not Less than: **$1,000,000** (1 million) Each Occurrence **$2,000,000** (2 million) General Aggregate Any Self-Insured-Retention or Deductible shall not exceed $25,000.
4) ♦ INLAND MARINE BUILDER'S RISK INSURANCE * Policy shall include (but not limited to) the following: a) Amended Policy period of no less than twenty-two (22) months or estimated project length whichever is longer.	♦ ☐ Check Here If Coverage is Required by a City Operational Department An amount at least equal to one-hundred percent (100%) of the projected completed value of the Work, as well as subsequent modifications of that sum due to Change Orders.
5) ♦ CONTRACTOR'S POLLUTION LIABILITY INSURANCE *	♦ ☐ Check Here If Coverage is Required by a City Operational Department Not Less than: **$1,000,000** (1 million) Each Occurrence **$2,000,000** (2 million) General Aggregate
6) COMMERCIAL UMBRELLA / EXCESS LIABILITY *	Not Less than: **$5,000,000** (5 million) Each Occurrence **$5,000,000** (5 million) General Aggregate Any Self-Insured-Retention or Deductible shall not exceed $25,000.

INSURANCE COVERAGE REQUIRED * Endorsement Required	
TYPE	**AMOUNT**
7) WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY	**Statutory Limits for Workers' Compensation** TEX. LAB. CODE ANN. Title 5, Subtitle A, Chapter 401 TEX. ADMIN. CODE, Title 28, Part 2 **Employer's Liability Limits** **$1,000,000 (1 million)** Bodily Injury by Accident **$1,000,000 (1 million)** Bodily Injury by Disease Each Occurrence **$1,000,000 (1 million)** Bodily Injury by Disease Aggregate Limit

Checklist: Certificate(s) of Insurance

*** Provided only as a courtesy ***

[*See generally* Section 16.8 *General Conditions* for contract insurance requirements]

1.	All pages of the *Certificate of Liability Insurance* shall be attached. *See* lower right corner of certificate for *ex toto* pagination. E.g. Page 1 of 2
2.	Policy Effective and Expiration Dates (for each type of coverage) Policy **effective date** is ON or BEFORE Contract date, and Policy **expiration date** should extend at least 6 months into the future OR for the estimated project length, whichever is greater.
3.	General Liability [*See* Section 16.8.3] ☒ **Occurrence** Box is Checked ☒ **Per Project** Box is Checked for General Aggregate Limit.
4.	Automobile Liability [*See* Section 16.8.4] At a minimum each of the following boxes should be checked: ☒ Any Auto OR ☒ All Owned Autos, and ☒ Hired Autos, and ☒ Non-Owned Autos.
5.	Excess/Umbrella Liability [*See* Section 16.8.8] ☒ Occurrence Box is Checked
6.	Workers Compensation and Employers Liability [*See* Section 16.8.15] ☒ WC Statutory Limits Box is Checked
7.	Look at the "Description of Operations . . . Special Provisions" Box. [*See* Section 16.8.9] [*See also* Section 16.8.11] Clearly indicate the **CITY** has been endorsed by using this language: "The City of Tyler (i.e. Certificate Holder) shall be named as Additional Insured as respects to General Liability and Auto and shall have a Waiver of Subrogation as respects to General Liability, Auto and Workers' Compensation all as required by written contract subject to policy terms, conditions and exclusions. Coverage is primary, non-contributory as respects to General Liability and Auto as required by written contract."
8.	Clearly identify each policy's limits, flat & percentage deductibles, sub-limits, or self-insured retentions, which exceed the amounts or percentages set forth herein.
9.	Certificate Holder: [*See generally* Section 16.8] [*See* Section 16.8.9] City of Tyler P.O. Box 2039 Tyler, TX 75710

Section 11 ENDORSEMENTS

[Endorsements Shall Be Inserted Here]

* ENDORSEMENT(S) REQUIRED	
Name of Additional Insured Person(s) or Organization(s): City of Tyler P.O. Box 2039 Tyler, TX 75710	Location(s) of Covered Operations: Project [*insert project name*], City of Tyler Bid Number [*insert bid number*], Dated [*insert month and year of contract*].

Contractor shall choose one of the three Endorsement Option stated below. All Endorsements shall be in the form required. All pages of the Endorsement(s) shall be attached.

COMMERCIAL GENERAL LIABILITY

CONTRACTOR agrees to endorse the **CITY** as an "Additional Insured" on the Commercial General Liability with: [*Select Option 1, Option 2 or Option 3 below*] [*See* Section 16.8.3 and 16.8.9]

Option 1	**FORM: CG 20 10 10 01** Additional Insured - Owners, Lessees, or Contractors – Scheduled Person or Organization **AND** **FORM: CG 20 37 07 04** Additional Insured – Owners, Lessees, or Contractors – Completed Operations
OR	
Option 2	**FORM: CG 20 10 07 04** Additional Insured – Owners, Lessees, or Contractors – Scheduled Person or Organization **AND** **FORM: CG 20 37 07 04** Additional Insured – Owners, Lessees, or Contractors – Completed Operations
OR	
Option 3	**FORM:** ISO/PROPRIETARY FORM STATING SAME OR SUBSTANTIALLY SIMILAR LANGUAGE AS CG 20 10 07 04 /CG 20 10 10 01 AND THAT PROVIDES THE SAME OR BETTER COVERAGE. Additional Insured – Owners, Lessees, or Contractors – Scheduled Person or Organization – Your Work **AND** **FORM:** ISO/PROPRIETARY FORM STATING SAME OR SUBSTANTIALLY SIMILAR LANGUAGE AS CG 20 37 07 04 AND THAT PROVIDES THE SAME OR BETTER COVERAGE. Contractors' Commercial General Liability Broadened – with coverage for Completed Operations in conformance to specific written contract

COMMERCIAL UMBRELLA / EXCESS LIABILITY

CONTRACTOR agrees to endorse the **CITY** as an "Additional Insured" under the Commercial Umbrella / Excess Liability as also provided herein. [*See* Section 16.8.8 and 16.8.9]

INLAND MARINE BUILDER'S RISK INSURANCE

♦ If applicable **CONTRACTOR** agrees to endorse the **CITY** as an "Additional Insured" under the Inland Marine Builders Risk Insurance as also provided herein. [*See* Section 16.8.6 and 16.8.9]

Section 12 CONTRACTOR'S AFFIDAVIT OF BILLS PAID

THE STATE OF TEXAS	§	**CONTRACTOR'S**
	§	**AFFIDAVIT OF BILLS PAID**
	§	**CAPITAL IMPROVEMENT PROJECT (CIP) CONTRACTS**
	§	
COUNTY OF SMITH	§	**Tex. Prop. Code Ann. § 53.085(a)**

THIS AFFIDAVIT is made for the purpose of obtaining balance due from City of Tyler, "**CITY**", on the construction work described herein provided the **CONTRACTOR** has fully performed his contractual obligations under the terms of the AGREEMENT.

I, _____ *[Name of Affiant]*, do solemnly swear or affirm that I am the legal representative of _____ *[Contractor's Company / Corporation Name]*, the City of _____, the County of _____, the State of _____, and that the work for the construction of the project designated below has been satisfactorily completed:

City of Tyler Bid Number	26-072
Project Name	2026 Pedestrian Access Improvements

Additionally, I do solemnly swear or affirm:

☐ All bills for materials, supplies, apparatus, fixtures, machinery, labor, subcontractors, laborers and materialmen used in connection with the construction of this project have been fully paid.

OR

☐ The following bills have **not** been fully paid (☐ attach additional pages if necessary):

Name	Amount Owed	Telephone	Address
	$		
	$		
	$		

_____
Signature of Contractor

Sworn to and subscribed before me by *Affiant* on the_____ day of _____, 20_____.

_____
Notary Public In and For The State of Texas

My Commission Expires: _____ _____
Notary's Printed Name

Section 13 RESERVED

Section 14 WAIVER AND RELEASE

THE STATE OF TEXAS	§	**CONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT**
	§	
	§	**PURSUANT TO**
	§	
	§	**AGREEMENT**
	§	**AND/OR**
COUNTY OF SMITH	§	**PURSUANT TO TEX. PROPERTY CODE § 53.284 FORMS FOR WAIVER AND RELEASE OF LIEN OR PAYMENT BOND CLAIM**

CONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT

City of Tyler Bid Number	26-072
Project Name	2026 Pedestrian Access Improvements

On receipt by the signer of this document of a check from _____ *[Maker of Check]* in the sum of $_____ payable to _____ *[Payee(s) of Check]* and when the check has been properly endorsed and has been paid by the bank on which it is drawn, this document becomes effective to release any mechanic's lien right, any right arising from a payment bond that complies with a state or federal statute, any common law payment bond right, any claim for payment, and any rights under any similar ordinance, rule, or statute related to claim or payment rights for persons in the signer's position that the signer has on the property of _____ *[Owner]* located at _____ *[Location]* to the following extent:_____ *[Job Description]*.

This release covers the final payment to the signer for all labor, services, equipment, or materials furnished to the property or to _____ *[Person with Whom Signer Contracted]*.

Before any recipient of this document relies on this document, the recipient should verify evidence of payment to the signer.

The signer warrants that the signer has already paid or will use the funds received from this final payment to promptly pay in full all of the signer's laborers, subcontractors, materialmen, and suppliers for all work, materials, equipment, or services provided for or to the above referenced project up to the date of this waiver and release.

Date _____
_____ (Company name)

By _____ (Signature)
_____ (Title)

THE STATE OF TEXAS	§	**UNCONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT**
	§	
	§	**PURSUANT TO**
	§	
	§	**AGREEMENT**
	§	**AND/OR**
COUNTY OF SMITH	§	**PURSUANT TO TEX. PROPERTY CODE § 53.284 FORMS FOR WAIVER AND RELEASE OF LIEN OR PAYMENT BOND CLAIM**

NOTICE:

This document waives rights unconditionally and states that you have been paid for giving up those rights. It is prohibited for a person to require you to sign this document if you have not been paid the payment amount set forth below. If you have not been paid, use a conditional release form.

UNCONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT

City of Tyler Bid Number	26-072
Project Name	2026 Pedestrian Access Improvements

The signer of this document has been paid in full for all labor, services, equipment, or materials furnished to the property or to _____ *[Person with Whom Signer Contracted]* on the property of _____ *[Owner]* located at _____ *[Location]* to the following extent: _____ *[Job Description]*. The signer therefore waives and releases any mechanic's lien right, any right arising from a payment bond that complies with a state or federal statute, any common law payment bond right, any claim for payment, and any rights under any similar ordinance, rule, or statute related to claim or payment rights for persons in the signer's position.

The signer warrants that the signer has already paid or will use the funds received from this final payment to promptly pay in full all of the signer's laborers, subcontractors, materialmen, and suppliers for all work, materials, equipment, or services provided for or to the above referenced project up to the date of this waiver and release.

Date _____

_____ (Company name)

By _____ (Signature)

_____ (Title)

Section 15 PROCEDURE FOR CORRECTING CONSTRUCTION DEFECTS

Check Here if this Section IS Applicable to This Contract ☐

****ONLY APPLICABLE FOR CONSTRUCTION ACTIVITIES AFFECTING CITY-OWNED BUILDINGS AND OTHER PUBLIC WORKS PROJECTS AS DEFINED IN TEX. GOV. CODE ANN., SEC. 2269.001 (6)****

This PROCEDURE is not applicable to "civil works" projects as defined in Tex. Gov. Code Ann., Sec. 2269.351

I. DEFINITIONS

A. **"Public Works"** projects, as defined in Tex. Gov. Code Ann., Sec. 2269.001 (6), are those related to constructing, altering, or repairing a public building or carrying out any public work.

B. **"Civil works"** projects, as defined in Tex. Gov. Code Ann., Sec. 2269.351 are those related to roads, streets, bridges, utilities, water supply projects, water plants, waste water plants, water distribution and wastewater conveyance facilities, desalination projects, wharves, docks, airport runways and taxiways, storm drainage, flood control projects and transit projects.

II. NOTIFICATION OF DEFECT

A. **ENGINEER/ARCHITECT SHALL NOTIFY OWNER IN WRITING OF ANY CONSTRUCTION DEFECT** of which the ENGINEER is aware, and which shall include any deficiency in the construction of an improvement to real property, including a deficiency in or arising out of the design, specifications, surveying, planning or supervision of the construction that is a result of:

i. The use of defective materials, products, or components in the construction;
ii. A violation of a building code applicable by law to the construction;
iii. A failure of the design of an improvement to real property to meet the professional standards of care applicable at the time of governmental approval of the design or as otherwise applicable if no governmental approval of the design was required or obtained; and/or
iv. A failure to perform the construction in accordance with the accepted trade standards for good and workmanlike construction.

B. The E/A's writing shall identify the specific construction defect, describe the present physical condition of the affected structure; and describe any modification, maintenance, or repairs to the affected structure made by the governmental entity or others since the affected structure was initially occupied or used.

III. PROCEDURE TO CORRECT CONSTRUCTION DEFECTS

A. Before bringing an action asserting a claim for a construction defect under this Agreement, the OWNER must:

i. Provide a written report. A written report shall be provided to each party with whom the OWNER has a contract for the design, construction or construction oversight of an affected structure by certified mail, return receipt requested.
ii. Contents of Report. The report shall clearly identify the specific construction defect(s) of which the claim is based, which shall include any deficiency in the construction of an

improvement to real property, including a deficiency in or arising out of the design, specifications, surveying, planning, or supervision of the construction that is a result of:

a. The use of defective materials, products, or components in the construction;
b. A violation of a building code applicable by law to the construction;
c. A failure of the design of an improvement to real property to meet the professional standards of care applicable at the time of governmental approval of the design or as otherwise applicable if no governmental approval of the design was required or obtained; and/or
d. A failure to perform the construction in accordance with the accepted trade standards for good and workmanlike construction.

iii. The report shall:

a. Identify the specific construction defect on which the claim is based;
b. Describe the present physical condition of the affected structure; and
c. Describe any modification, maintenance, or repairs to the affected structure made by the governmental entity or others since the affected structure was initially occupied or used.

B. OWNER shall allow each party with whom the OWNER has a contract for the design or construction of an affected structure and who is subject to the claim, and any known subcontractor or supplier who is subject to the claim a reasonable opportunity to inspect any construction defect or related condition identified in the report for a period of 30 days after receiving the report.

C. OWNER shall allow at least 120 days *after* the inspection to:

i. Correct any construction defect or related condition identified in the report; or
ii. Enter into a separate agreement with the governmental entity to correct any construction defect or related condition identified in the report.

D. OWNER is not required to allow a party to make a correction or repair under Subsection B. if the party:

i. Is a contractor and cannot provide payment and performance bonds to cover the corrective work; and or
ii. Cannot provide liability insurance or workers' compensation insurance; and/or
iii. Has been previously terminated for cause by OWNER; and/or
iv. Has been convicted of a felony; or

E. OWNER is not required to allow a party to make a correction or repair under Subsection II.C.i. if OWNER previously complied with the process required by Subsection II.A. regarding a construction defect or related condition identified in the report and:

i. The defect or condition was not corrected as required by Subsection II.C.i. or by an agreement under Subsection II.C.ii.; or
ii. The attempt to correct the construction defect or related condition identified in the report resulted in a new construction defect or related condition.

F. Recovery of Report Costs. If the report described in Subsection II.A. identifies a construction defect that is corrected or for which the OWNER recovers damages, the party responsible for that construction defect shall pay the reasonable amounts incurred by OWNER to obtain the report with respect to identification of that construction defect.

G. These provisions do not prohibit or limit the OWNER from making emergency repairs to the property as necessary to protect the health, safety, and welfare of the public or a building occupant.

Section 16 GENERAL CONDITIONS

General Conditions of Agreement for Capital Improvement Project (CIP) Contracts

16.1 DEFINITIONS OF TERMS

16.1.1 Addenda

Written or graphic instrument issued prior to the opening of bid packages which clarify, correct or change the bidding requirements or contract documents.

16.1.2 Agreement

The entire "AGREEMENT" between the **CITY** and **CONTRACTOR** including all contract documents.

16.1.3 Calendar Day

Any day of the week or month, no days being excepted.

16.1.4 Change Order

A document recommended by the Project Designer, which is signed by the **CONTRACTOR** and **CITY** and which authorizes an addition, deletion or revision of the Work which requires an adjustment in the contract price or contract times, issued on or after the effective date of the AGREEMENT.

16.1.5 City

The word "**CITY"** in these documents shall be understood as referring to the City of Tyler, Texas, a municipal corporation acting through the City Manager or his/her designee, officers, agents or employees.

16.1.6 Contract Documents

The contract documents constitute the entire AGREEMENT between the **CITY** and **CONTRACTOR.**

16.1.7 Contract Price

The moneys payable by **CITY** to **CONTRACTOR** for completion of the Work in accordance with the contract documents as stated in the ***Standard Form of Agreement***.

16.1.8 Contract Time

The number of days stated in the ***Standard Form of Agreement*** to achieve final completion so that it is ready for final payment as evidenced by the Project Designer's written recommendation of final payment.

16.1.9 Contractor

The individual, firm, corporation, or other business entity with whom **CITY** has entered into this AGREEMENT for performance of the Work (*see* Section 16.3, "Responsibilities of the Contractor").

16.1.10 Extra Work

All work that may be required by the **CITY** to be done by the **CONTRACTOR** to accomplish any addition, deletion or revision to the Work not originally shown on the plans, reasonably implied by the specifications or covered by the **CONTRACTOR'S** proposal (*see* Section 16.14, "Extra Work and Claims").

16.1.11 Field Order

A written order issued by the Project Representative which orders minor changes in the Work but which does not involve a change in the contract price or contract time.

16.1.12 Final Completion (a.k.a. Complete in Full or Completed in Full)

The point when the **CITY** determines that all Work has been completed and final payment to **CONTRACTOR** will be made in accordance with the contract documents.

16.1.13 Notice to Proceed

A written notice by the **CITY** to the **CONTRACTOR** fixing the date on which the contract time will commence and run and which on or before **CONTRACTOR** shall start to perform.

16.1.14 Reserved

16.1.15 Ozone Action Day

Any day between May 3 through September 30, inclusive, in which the eight (8)-hour concentration of ozone is expected to reach or exceed a target level of seventy-six (76) parts per billion (ppb), as determined by the Texas Commission on Environmental Quality (TCEQ). Notification of an Ozone Action Day will result in the implementation of the City of Tyler's Ozone Action Plan (*see* Section 16.11.4, "Ozone Action Day").

16.1.16 Proposal

The offer of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

16.1.17 Project Designer

The individual, firm or corporation, including their representatives, retained by the **CITY** to design and/or engineer the project. Nothing contained in the contract documents shall create any contractual or agency relationship between the Project Designer and the **CONTRACTOR** (*see* Section 16.4, "Responsibilities of the Project Designer").

16.1.18 Project Representative

The authorized representative of the **CITY** during the performance of the Work by the **CONTRACTOR** (*see* Section 16.5, "Responsibilities of the Project Representative").

16.1.19 Rain Day

Under a calendar day contract, a rain day is a day of normal precipitation for which no extension of time will be granted (*see* Section 16.12.5, "Inclement Weather").

16.1.20 Standard Specifications

The standard specifications for the **CITY** are the City of Tyler Standard Specifications, the latest

edition in effect at time of bidding and the Texas Department of Transportation Standard Specifications for Construction of Highways, Streets and Bridges, the latest edition in effect at time of bidding except where specifically superseded in the City of Tyler Standard Specifications and/or City of Tyler Standard Details, both of which are hereby made a part of this contract by reference, unless otherwise specified, and in such force and effect as if contained at length herein.

16.1.21 Sub-Contractor

An individual, firm, corporation, or other business entity having a direct contract with the **CONTRACTOR** for the performance of a portion of the Work under the contract.

16.1.22 Substantial Completion

The point when the Work has been made suitable for use or occupancy or is in a condition to serve its intended purpose, but still may require minor miscellaneous work and adjustment.

16.1.23 Supplier

A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with **CONTRACTOR** or with any Subcontractor to furnish materials or equipment to be incorporated into the Work by **CONTRACTOR** or Subcontractor.

16.1.24 Traffic Engineer

The person employed by, and named as such by, the City of Tyler, or his/her designee.

16.1.25 Work

The entire completed construction required to be furnished under the contract documents. Work includes, and is the result of furnishing, all materials, supplies, machinery, equipment, tools, superintendence, labor, services, insurance, and all water, light, power, fuel, transportation and other facilities necessary for the execution and completion of the Work covered by the contract documents. Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of a good quality. The **CONTRACTOR** shall, if required, furnish satisfactory evidence as to the kind and quality of materials. Materials or work described in words which so applied have a well-known technical or trade meaning shall be held to refer to such recognized standards.

16.1.26 Working Day

Any day not including Saturdays, Sundays or any legal holidays as designated by the City of Tyler, in which weather or other conditions, not under the control of the **CONTRACTOR**, will permit construction of the principal units of the Work for a period of not less than seven (7) continuous hours between 7:00 a.m. and 6:00 p.m. A "Principal Unit of Work" is hereby defined as any item of work for which there is a bid item specifically set up for payment in the contract.

16.1.27 Working Hours

All Work shall be done between 7:00 a.m. and 6:00 p.m., Monday through Friday excluding holidays, unless authorized by the Project Representative. However, emergency Work may be done without prior permission. If night Work is authorized and conditions under **CONTRACTOR'S** control will permit Work for a continuous period of not less than seven (7) hours between 12:00 a.m. and 11:59 p.m. it will be considered a Working Day. Night Work may be revoked at any time by the **CITY** if the **CONTRACTOR** fails to maintain adequate equipment and supervision for the prosecution and control of the night Work.

16.1.28 Written Notice

Written notice shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by mail to the last business address known to the party by whom notice is given.

16.2 RESPONSIBILITIES OF THE CITY

16.2.1 Collateral Contracts

The **CITY** agrees to provide by separate contract or otherwise, all labor and material essential to the completion of the Work specifically excluded from this contract, in such manner as not to delay the progress of the Work, or damage said **CONTRACTOR**, except where such delays are specifically mentioned elsewhere in the contract documents.

16.2.2 Easements and Right-of-Way

Easements and right-of-way, where required, will be provided by the **CITY**.

16.3 RESPONSIBILITIES OF THE CONTRACTOR

16.3.1 Contractor's Understanding

It is understood and agreed that the **CONTRACTOR** is, after careful examination, satisfied as to the nature and location of the Work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the Work, the general and local conditions, and all other matters which can in any way affect the Work under this contract. No verbal agreement or conversation with any officer, agent or employee of the **CITY** or Project Designer either before or after the execution of this contract shall affect or modify any of the terms or obligations herein contained.

16.3.2 Keeping Plans and Specifications Accessible

The Project Designer shall furnish the **CONTRACTOR** with an adequate and reasonable number of copies of all plans and specifications without expense to the **CONTRACTOR**, and the **CONTRACTOR** shall keep a minimum of one copy of the same constantly accessible on the Work, with the latest revisions noted thereon.

16.3.3 Right of Entry

The **CITY** reserves the right to enter the property or location on which the Works herein contracted for are to be constructed or installed, by such agent or agents as the **CITY** may elect, for the purpose of inspecting the Work, or for the purpose of constructing or installing such collateral work as said **CITY** may desire.

16.3.4 Contractor's Duty and Superintendence

The **CONTRACTOR** shall give adequate attention to the faithful prosecution and completion of this contract and shall keep on the Work, during its progress, a competent superintendent and any necessary assistants. The superintendent shall represent the **CONTRACTOR** in the

CONTRACTOR'S absence and all directions given to the superintendent shall be as binding as if given to the **CONTRACTOR**. In the absence of the superintendent from the job site, an acting-superintendent shall be appointed to be in full charge of the Work.

The **CONTRACTOR** is and at all times shall remain an independent contractor, solely responsible for the manner and method of completing the Work under this contract, with full power and authority to select the means, method and manner of performing such Work, so long as such methods do not adversely affect the completed improvements, with the **CITY** and Project Representative being interested only in the result obtained and conformity of such completed improvements to the plans, specifications and contract.

Likewise, the **CONTRACTOR** shall be solely responsible for the safety all employees and other persons, as well as for the protection of the safety of the improvements being erected and the property of the **CONTRACTOR** or any other person, as a result of the operations hereunder. Engineering and/or supplemental construction drawings and specifications, as well as any additional information concerning the Work to be performed, passing from or through the Project Designer shall not be interpreted as requiring or allowing the **CONTRACTOR** to deviate from the plans and specifications, the intent of such drawings, specifications or any other such instructions being to define with particularity the agreement of the parties as to the Work the **CONTRACTOR** is to perform. The **CONTRACTOR** shall be fully and completely liable, at the **CONTRACTOR'S** own expense, for design, construction, installation and use, or non-use, of all items and methods incident to performance of the contract, and for all loss, damage or injury, including death, incident thereto, either to person or property, including, without limitation, the adequacy of all temporary supports, shoring, bracing, scaffolding, machinery or equipment, safety precautions or devices, and similar items or devices used by the **CONTRACTOR** during construction.

Any review of Work in process, or any visit or observation during construction, or any clarification of plans and specifications, by the **CITY** or Project Designer, or any agent, employee, or representative of them, whether through personal observation on the project site or by means of approval of shop drawings for temporary construction or construction processes, or by other means or method, is agreed by the **CONTRACTOR** to be for the purpose of observing the extent and nature of Work completed or being performed, as measured against the drawings and specifications constituting the contract, or for the purpose of enabling the **CONTRACTOR** to more fully understand the plans and specifications so that the completed construction Work will conform thereto, and shall in no way relieve the **CONTRACTOR** from full and complete responsibility for the proper performance of the Work on the project, including but without limitation the propriety of means and methods of the **CONTRACTOR** in performing said contract, and the adequacy of any designs, plans or other facilities for accomplishing such performance. Deviation by the **CONTRACTOR** from the plans and specifications that may have been in evidence during any such visitation or observation by the **CITY** or Project Designer, or any of their representatives, whether called to the **CONTRACTOR'S** attention or not shall in no way relieve the **CONTRACTOR** from the responsibility to complete all Work in accordance with said plans and specifications.

16.3.5 Character of Workers

The **CONTRACTOR** agrees to employ only orderly and competent workers, skillful in the performance of the type of work required under this contract to do the Work; and agrees that whenever the Project Representative shall inform the **CONTRACTOR** in writing that any worker or workers are, in the Project Representative's opinion, incompetent or disorderly, such worker or

workers shall be discharged from the Work and shall not again be employed on the Work without the Project Representative 's written consent.

16.3.6 Assignment and Subcontracting

The **CONTRACTOR** may assign or subcontract portions of the Work in accordance with the ***Instructions to Bidders***. However, the **CONTRACTOR** shall not employ any subcontractor against whom the **CITY** may have a reasonable objection.

16.3.7 Subsurface Conditions

Unless otherwise noted in the plans or specifications, the **CITY** has made no investigation of subsurface conditions within the project limits and makes no representation regarding the presence or absence of groundwater, unstable soils, or any other unfavorable hydrologic or geologic conditions within the project area. It shall be the **CONTRACTOR'S** sole responsibility to perform any investigations the **CONTRACTOR** deems necessary and to provide all equipment, labor, and materials needed to complete the project including, but not limited to, sheeting, shoring, bracing, pumps, and/or well pointing. The provision of all labor, equipment, and materials necessary to alleviate unfavorable subsurface conditions shall be subsidiary to the various pay items established in the proposal for furnishing and installing the Work. The **CONTRACTOR** shall be due no additional compensation relative to subsurface conditions.

16.3.8 Protection of Materials, Equipment and Work

The **CONTRACTOR** shall be responsible for the care, preservation, conservation, and protection of all materials, supplies, machinery, equipment, tools, apparatus, accessories, facilities, all means of construction, and any and all parts of the Work, whether the **CONTRACTOR** has been paid, partially paid, or not paid for such Work, until the entire Work is completed and accepted.

The **CONTRACTOR** shall arrange for storage of materials on or near the job site. Materials shall be stored at a place which shall not inconvenience the public or interfere with job progress and to best preserve the material to the satisfaction of the **CITY**. Materials shall be sorted and stacked neatly for ease of count and observation for compliance with material specifications. Improperly stored materials will not be eligible for inclusion in partial estimates.

16.3.9 Protection Against Accident to Employees and the Public

The **CONTRACTOR** shall at all times exercise reasonable precautions for the safety of employees and others on or near the Work and shall comply with all applicable provisions of Federal, State, and Municipal safety laws and building and construction codes. All machinery and equipment and other physical hazards shall be guarded in accordance with the Manual of Accident Prevention in Construction of the Associated General Contractors of America, except where incompatible with Federal, State, or Municipal laws or regulations. The **CONTRACTOR** shall provide such machinery guards, safe walkways, ladders, bridges, gangplanks, and other safety devices. The safety precautions actually taken and their adequacy shall be the sole responsibility of the **CONTRACTOR**, acting at the **CONTRACTOR'S** discretion as an independent contractor.

The right of the Project Representative to conduct construction review or observation of the **CONTRACTOR'S** performance or Work will not include review or observation of the adequacy of the **CONTRACTOR'S** safety measures in, on, or near the construction site.

16.3.10 Shop Drawings and Other Submittals

The **CONTRACTOR** shall submit to the Project Designer with such promptness as to cause no

delay in the Work or in that of any other contractor, five (5) checked copies, unless otherwise specified, of all shop and/or setting drawings and schedules required for the work of the various trades, and the Project Designer shall pass upon them with reasonable promptness, making desired corrections. The **CONTRACTOR** shall make any corrections required by the Project Designer, file with the Project Designer four (4) corrected copies and furnish such other copies as may be needed. The Project Designer's approval of such drawings or schedules shall not relieve the **CONTRACTOR** from responsibility for deviations from drawings or specifications, unless the **CONTRACTOR** has in writing called the Project Designer's attention to such deviations at the time of submission, nor shall it relieve the **CONTRACTOR** from responsibility for errors of any sort in shop drawings or schedules. It shall be the **CONTRACTOR'S** responsibility to fully and completely review all shop drawings to ascertain their effect on the **CONTRACTOR'S** ability to perform the required contract Work in accordance with the plans and specifications and within the contract time.

Such review by the Project Designer shall be for the sole purpose of determining the sufficiency of said drawings or schedules to result in finished improvements in conformity with the plans and specifications, and shall not relieve the **CONTRACTOR** of the **CONTRACTOR'S** duty as an independent contractor as previously set forth, it being expressly understood and agreed that the Project Designer does not assume any duty to pass upon the propriety or adequacy of such drawings or schedules, or any means or methods reflected thereby, in relation to the safety of either person or property during **CONTRACTOR'S** performance hereunder.

Prior to beginning the Work, the **CONTRACTOR** shall submit to the **CITY**, a list of all valves, hydrants, pumps, and other pieces of major equipment to be installed under this contract that includes the number used, the manufacturer and model, and the location installed of each piece of equipment. If requested by the **CITY**, the **CONTRACTOR** shall also submit manufacturer's product data for each piece of equipment.

16.3.11 Water for Construction

The **CONTRACTOR** must make arrangements for water required for construction and shall furnish tank trucks, pumps, pipe, hose, water storage tanks, or whatever else the **CONTRACTOR** needs to secure the water and store it for use on the Work. If the **CONTRACTOR** desires to use **CITY** water from a fire hydrant, the **CONTRACTOR** must rent a hydrant meter from Tyler Water Utilities. The **CONTRACTOR** shall furnish a proper fire hydrant wrench with a five (5)-sided socket to fit the hydrant operating nuts. Opening and closing of fire hydrants with a pipe or crescent wrench or any tool not made especially for the five (5)-sided hydrant nuts will not be permitted. The **CONTRACTOR** shall replace all fire hydrant caps after the **CONTRACTOR'S** tank truck is loaded with water. The **CONTRACTOR** shall not use any water from the municipal water system until the **CONTRACTOR** obtains a hydrant meter and prior authorization for such use from Tyler Water Utilities.

16.3.12 Contractor's Buildings

The erection of temporary structures for the use of field offices, will be permitted only at such places as approved by the Project Representative and shall at all times be maintained in a manner satisfactory to the Project Representative.

16.3.13 Sanitation

Necessary sanitary conveniences for the use of laborers on the Work, properly secluded from public observation, shall be constructed and maintained by the **CONTRACTOR** in such manner

and at such points as shall be approved by the Project Representative, and their use shall be strictly enforced.

16.3.14 Protection Against Claims

The **CONTRACTOR** will indemnify, hold harmless and defend the **CITY** and its Project Designer from and against all claims arising from demand for payment of all lawful sums due based upon the provision of labor or materials in the furtherance of the performance of this contract by sub-contractors, laborers, workmen, mechanics, materialmen and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary. When so desired by the **CITY**, the **CONTRACTOR** shall furnish satisfactory evidence that all obligations of the nature herein above designated have been paid, discharged or waived.

16.3.15 Intellectual Property - Payment of Royalties and License Fees

CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others.

If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of **CITY** or Project Designer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by **CITY** and Project Designer in the Contract Documents.

CONTRACTOR shall indemnify, hold harmless and defend **CITY** and its officers, directors, employees, Project Designer and agents from and against all claims, costs, losses and damages arising out of or resulting from any infringement by **CONTRACTOR** of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents.

16.3.16 Compliance with Laws and Ordinances

The **CONTRACTOR** shall at all times observe and comply with all Federal, State and local laws, ordinances and regulations, which in any manner affect the contract or the Work. **CONTRACTOR SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND CITY AND ITS PROJECT DESIGNER FROM AND AGAINST ALL CLAIMS ARISING FROM THE VIOLATION OF ANY SUCH LAWS, ORDINANCES, AND REGULATIONS BY THE CONTRACTOR OR THE CONTRACTOR'S EMPLOYEES.** If the **CONTRACTOR** observes that the plans and specifications are at variance therewith, the **CONTRACTOR** shall promptly notify the Project Designer in writing, and any necessary changes shall be adjusted as provided in the contract for changes in the Work. If the **CONTRACTOR** performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Project Designer, the **CONTRACTOR** shall bear all costs arising therefrom.

The City of Tyler is a home-rule municipality acting under its Charter adopted by the electorate pursuant to the Texas Constitution, Article 11, Section 5 and the TEX. LOC. GOV'T CODE ANN. Chapter 9. The **CITY** has full power of self-government under TEX. LOC. GOV'T CODE ANN. § 51.072(a). The **CITY** shall retain and exercise all powers, whether express or implied, that now are, or hereafter may be, granted to municipalities by the Texas Constitution or laws of the State of Texas. The laws from which the **CITY** derives its powers shall be considered a part of this

Contract, as if embodied herein, to the extent that such laws regulate the manner or conditions under which the **CITY** may enter into a Contract.

16.3.17 OSHA Requirements

The **CONTRACTOR** will be required to adhere to, and all mechanical equipment and construction procedures shall conform to, all of the applicable requirements of the Federal Occupational Safety and Health Act of 1930 (OSHA) which is made a part of this contract by reference. Particular attention should be given to requirements relating to trench safety.

16.3.18 Trench Safety Systems

The **CONTRACTOR** shall retain the sole responsibility for the design, fabrication, erection, and removal of trench safety systems for excavation and construction of all trenches. Trench safety systems shall be designed and installed in accordance with the City of Tyler Standard Specification for Trench Safety Systems. Prior to issuance of the ***Notice to Proceed*** the **CONTRACTOR** shall submit two (2) copies of a Trench Safety Plan to the **CITY** which shall be written documentation of the **CONTRACTOR'**S proposed trench safety system.

16.4 RESPONSIBILITIES OF THE PROJECT DESIGNER

16.4.1 Project Designer-City Relationship

The duties, responsibilities and limitations of authority of the Project Designer as the **CITY'S** representative during construction are as set forth in the contract documents and shall not be extended or limited without written consent of the **CITY** and Project Designer. Generally, unless otherwise specifically provided in the ***Special Conditions***, the Project Designer will perform the following functions:

A. Design the project and prepare all projects plans and specifications.
B. Assist in bidding, respond to pre-bid questions and requests for clarifications.
C. Attend the pre-bid conference.
D. Issue any necessary addenda.
E. Attend pre-construction conferences, progress meetings and other job conferences as may be required.
F. Review **CONTRACTOR'S** initial cost breakdown with schedule of values and/or bid schedule unit price list and recommend approval.
G. Review construction progress schedule, schedule of shop drawings, and other schedules prepared by the **CONTRACTOR** and determine their acceptability.
H. Receive and record the date of receipt, and monitor transmission of shop drawings, samples, and test data submitted by the **CONTRACTOR**, review and approve shop drawings, and transmit them back to **CONTRACTOR** as necessary. All such transmittal dates shall be recorded in the submittal log.
I. Respond to Requests for Information (RFI's) and issue such written clarifications or interpretations of the contract documents which shall be consistent with or reasonably inferable from the overall intent of the contract documents. If **CONTRACTOR** believes that a written clarification or interpretation justifies an increase in the contract price or contract time, **CONTRACTOR** may make a claim therefor as provided in Section 16.14, "Extra Work and Claims".
J. Verify and approve quantities of Work put in place during the preceding month, verify **CONTRACTOR'S** reimbursable field costs, if any, for authorized overtime, and review the **CONTRACTOR'S** application for payment and certify that the Work has progressed

to the point indicated by the **CONTRACTOR**, that to the best of the knowledge, information and belief of Project Designer, based on observations and review, the Work is in accordance with the contract documents, and that the **CONTRACTOR** is entitled to the payment of the amount certified.

K. Correct design defects.

L. Prepare all change orders and supplemental agreements in the form and manner approved by the **CITY**, for authorized alterations to the Work as provided for under the contract documents. Recommend to and obtain from the **CITY** approval or denial of changes to the contract times or price.

M. In the event of a claim or dispute by **CONTRACTOR**, interpret the requirements of the contract documents and judge the acceptability of the Work thereunder.

N. Assist Project Representative in preparation of punch list items.

O. Assist Project Representative with final inspection.

P. Recommend to **CITY** final completion.

16.4.2 Lines and Grades

Unless otherwise specified in the ***Special Conditions***, all lines and grades shall be furnished by the Project Designer or the Project Designer's representative. Whenever necessary, construction Work shall be suspended to permit performance of this work, but such suspension will be as brief as practicable and the **CONTRACTOR** shall be allowed no extra compensation therefore. The **CONTRACTOR** shall give the Project Designer reasonable notice of the time and place where lines and grades will be needed. All stakes, marks, etc. shall be carefully preserved by the **CONTRACTOR**, and in case of careless destruction or removal by the **CONTRACTOR** or the **CONTRACTOR'S** employees, such stakes, marks, etc. shall be replaced at the **CONTRACTOR'S** expense.

16.4.3 Initial Determinations

The Project Designer initially shall determine all claims, disputes and other matters in question between the **CONTRACTOR** and the **CITY** relating to the execution or progress of the Work or the interpretation of the contract documents, and the Project Designer's decision shall be rendered in writing within a reasonable time.

16.4.4 Payments for Work

The Project Designer shall review **CONTRACTOR'S** applications for payment and supporting data, determine the amount owed to the **CONTRACTOR** and approve, in writing, payment to **CONTRACTOR** in such amounts; such approval of payment to **CONTRACTOR** constitutes a representation to the **CITY** of Project Designer's professional judgment that the Work has progressed to the point indicated to the best of the Project Designer's knowledge, information and belief, but such approval of an application for payment to **CONTRACTOR** shall not be deemed as a representation by Project Designer that Project Designer has made any examination to determine how or for what purpose **CONTRACTOR** has used the moneys paid on account of the contract price.

16.4.5 Objections

In the event the Project Designer renders any decision which, in the opinion of either party hereto, is not in accordance with the meaning and intent of this contract, either party may file with the Project Designer within thirty days their written objection to the decision.

16.5 RESPONSIBILITIES OF THE PROJECT REPRESENTATIVES

16.5.1 Project Representative-City Relationship

The term Project Representative refers to the person or firm appointed by the **CITY** to be on the project site daily to oversee the construction on the **CITY'S** behalf. The Project Representative performs those functions of the person sometimes referred to as the "owner's representative," "resident engineer," "resident project representative," "onsite construction manager," or the "construction administrator." Sometimes the Project Representative will be a City employee, sometimes the Project Representative will be the same person or firm that designed the project, i.e., the Project Designer, and sometimes a different architect or engineer, but in any case, the Project Representative will represent the **CITY** and has only the authority granted by **CITY**, whether through an employment relationship or through a contract for professional services. The duties and responsibilities and the limitations of authority of the Project Representative during construction are set forth in the contract documents. Generally, unless otherwise specifically stated in the ***Special Conditions***, the Project Representative may perform the following functions:

A. Attend pre-construction conferences, progress meetings and other job conferences as may be required.
B. Provide "on-site" observation regarding conformance of the Work with the contract documents. Observe and document Work and any delays and identify and reject defective or deficient Work. Observe and approve or reject construction materials and equipment to determine their general compliance with the contract documents.
C. Assist **CONTRACTOR** in acquiring materials testing laboratory and inspection services.
D. Schedule, assist and accompany other City staff, the Project Designer and inspectors representing other agencies having jurisdiction over the Project that are visiting the Work and record and report the outcome of these inspections.
E. Prepare and furnish **CITY** with monthly reports of the progress of the Work and of the **CONTRACTOR'S** compliance with the approved progress schedule.
F. Review the Project Designer's interpretation of the contract documents for subsequent presentation to **CONTRACTOR** and resolve unanticipated field problems by "on-site" inspections.
G. Respond to general RFI's for general clarification and interpretation and consult, when appropriate, with Project Designer or refer RFI to Project Designer for response.
H. Issue field orders.
I. Advise the Project Designer when it is believed Work should be corrected, rejected, uncovered for observations, or requires special tests or inspections.
J. Furnish to **CITY** information, as required, relating to the **CONTRACTOR'S** claims including documents, calculations and other information relevant to such claims together with recommendations with regard to payment of such claims.
K. Maintain orderly files for correspondence, reports or job conferences, reproductions of original contract documents including addenda, authorized alterations to the contract documents, change orders, field orders, additional drawings issued subsequent to the execution of the AGREEMENT, clarification letters, and other alterations to the contract documents, interpretations of the contract documents, progress reports, and other project related documents.
L. Prepare, with assistance from the Project Designer, punch list items.
M. Recommend to **CITY** substantial completion.
N. Perform final inspection with assistance from the Project Designer.
O. Review **CONTRACTOR'S** completion documents.
P. Recommend to **CITY**, with concurrence of the Project Designer, final completion.

16.5.2 Professional Inspection by Project Representative

The Project Representative shall make periodic visits to the site to become familiar generally with the progress of the executed Work and to determine if such Work generally meets the essential performance and design features and the technical and functional engineering requirements of the contract documents; provided and except, however, that the Project Representative shall not be responsible for making any detailed, exhaustive, comprehensive or continuous on-site inspection of the quality or quantity of the Work or be in any way responsible, directly or indirectly, for the construction means, methods, techniques, sequences, quality, procedures, programs, safety precautions or lack of same incident thereto or in connection therewith. Notwithstanding any other provision of this AGREEMENT or any other contract document, the Project Representative shall not be in any way responsible or liable for any acts, errors, omissions or negligence of the **CONTRACTOR**, any subcontractor or any of the **CONTRACTOR'S** or subcontractor's agents, servants or employees or any other person, firm or corporation performing or attempting to perform any of the Work.

16.6 CONTRACT DOCUMENTS

16.6.1 Ownership of Drawings

The **CONTRACTOR,** and any subcontractor or supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with the **CITY,** shall not have or acquire any title to or ownership rights in any of the drawings, specifications, or other documents, or copies of any thereof, prepared by or bearing the seal of the Project Designer or Project Designer's consultant , and the **CONTRACTOR** shall not reuse any of such drawings or specifications, other documents or copies on extensions of the Work or any other project without written consent of the **CITY** and Project Designer and specific verification or adaption by the Project Designer.

16.6.2 Adequacy of Design

It is understood that the **CITY** believes it has employed competent engineers, architects and designers. It is, therefore, agreed that the **CITY** shall be responsible for the adequacy of the design, sufficiency of the contract documents, the safety of the structure and the practicability of the operations of the completed project; provided the **CONTRACTOR** has complied with the requirements of the said contract documents, all approved modifications thereof, and additions and alterations thereto approved in writing by the **CITY**. The burden of proof of such compliance shall be upon the **CONTRACTOR** to show that the **CONTRACTOR** has complied with the said requirements of the contract documents, all approved modifications thereof and all approved additions and alterations thereto.

16.6.3 Specifications

Titles to divisions and paragraphs in the specifications are introduced merely for convenience and are not to be taken as a correct or complete segregation of the several units of material and labor. No responsibility, either direct or implied, is assumed by the Project Designer for omissions or duplications by the **CONTRACTOR** or Subcontractors, due to real or alleged error in arrangement of matter in the specifications.

16.6.4 Discrepancies and Omissions

It is the intent of this contract that all Work must be done and all material must be furnished in accordance with the generally accepted practice, and in the event of any discrepancies between the separate contract documents, the priority of interpretation defined in the ***Standard Form of Agreement*** shall govern. In the event that there is still any doubt as to the meaning and intent of any portion of the contract, specifications or drawings, the Project Designer shall define which is intended to apply to the Work.

16.7 BONDS

16.7.1 General

The **CONTRACTOR** is required, pursuant to TEX. GOV'T CODE ANN. § 2253.021, and/or the ***Standard Form of Agreement*** to execute all bonds before commencing the work. The contract shall not be in effect until **CONTRACTOR** executes the AGREEMENT and files with the **CITY** a good and sufficient ***Statutory Performance and Maintenance Bond and Payment Bond*** (when applicable) or ***Payment Bond*** in the amount equal to one hundred percent (100%) of the total amount of the contract. Such bonds are furnished by the **CONTRACTOR** and approved by the **CITY**.

Within fifteen (15) calendar days after written notification of the award of the contract, the **CONTRACTOR** shall submit ***Statutory Performance and Maintenance Bond and Payment Bonds*** (when applicable) or ***Payment Bond*** to **CITY** on standard forms as required by the ***Standard Form of Agreement***.

Sureties may not be accepted who are now in default or delinquent on any bonds or who are interested in any litigation against the **CITY**. All bonds must be made on standard forms and must be executed by an approved surety company authorized to do business in the State of Texas and registered by the State Board of Insurance to conduct business in the State of Texas and acceptable according to the most recent list of the companies holding Certificates of Authority from the Secretary of the Treasury of the United States, shown on the Treasury List. Each bond must be executed by the **CONTRACTOR** and the sureties.

Should any surety on the contract be determined unsatisfactory at any time by the City Council, notice will be given to the **CONTRACTOR** to that effect, and the **CONTRACTOR** must provide a new surety satisfactory to the **CITY** within fifteen (15) calendar days. Payments may be withheld until the new surety or sureties, as required, have qualified and been accepted by the **CITY**.

16.7.2 Performance Bond

The performance bond guarantees the **CITY** that the **CONTRACTOR** will fully and faithfully execute the Work and performance of the AGREEMENT according to its terms including price and time and is solely for the protection of the **CITY** in the amount of the contract and conditioned on the faithful performance of the work in accordance with the plans, specifications, and contract documents. Pursuant to TEX. GOV'T CODE ANN. § 2253.021 and the ***Standard Form of Agreement*** a performance bond is required when the contract amount is in excess of one hundred thousand dollars ($100,000).

16.7.3 Maintenance Bond

The maintenance bond guarantees the **CITY** that the **CONTRACTOR** will guarantee the Work

against faulty workmanship and/or materials for a specified period of time following completion of the AGREEMENT. Pursuant to **CITY** policy and the ***Standard Form of Agreement*** a maintenance bond shall accompany the performance bond for a maintenance period of one (1) year after the date of final acceptance of the Work.

16.7.4 Payment Bond

The payment bond guarantees the **CITY** that the **CONTRACTOR** shall pay all bills for materials and labor for work provided for in said AGREEMENT and is solely for the protection and use of payment bond beneficiaries who have a direct contractual relationship with the prime contractor or a subcontractor to supply public work, labor or material and in the amount of the contract. Pursuant to TEX. GOV'T CODE ANN. § 2253.021 for contracts in excess of $25,000 a payment bond is required; however, pursuant to **CITY** Policy and the ***Standard Form of Agreement*** a payment bond shall be required for ALL projects regardless of value.

16.8 INSURANCE REQUIRED

16.8.1 Contractor Shall Maintain Insurance

CONTRACTOR agrees, at its sole expense, to maintain on a primary basis during the life of this Contract and the performance of Work hereunder, insurance coverage, limits, and endorsements unless otherwise noted herein. Insurance required by this contract for the **CITY** as additional insured shall be primary insurance and not contributing with any other insurance available to **CITY**.

CONTRACTOR agrees to provide evidence of the following coverage's at execution of contract:

- Commercial General Liability,
- Business Auto Liability**,**
- Contractor's Professional Errors & Omissions Liability if required by City Operation Department,
- Inland Marine Builder's Risk Insurance if required by City Operational Department,
- Contractor's Pollution Liability Insurance if required by a City Operational Department,
- Commercial Umbrella / Excess Liability, and
- Worker's Compensation and Employer's Liability

In the event the **CONTRACTOR** performs any site work, other than testing, then all the insurance required herein will need to be evidenced prior to commencement of said site work.

16.8.2 Insurance Requirements shall not limit Contractor's Liabilities and Obligations

The **CONTRACTOR** agrees the insurance requirements herein as well as **CITY'S** review or acknowledgement, is not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the **CONTRACTOR** under this AGREEMENT.

16.8.3 Commercial General Liability

CONTRACTOR agrees to maintain Commercial General Liability at a limit of liability not less than one million (**$1,000,000) Each Occurrence**, two million (**$2,000,000) General Aggregate per project. CONTRACTOR** agrees its coverage will not contain any restrictive endorsement(s) excluding or limiting Products - Completed Operations, Independent Contractors, Broad Form Property Damage, X-C-U Coverage (X = Explosion Hazard; C = Collapse Hazard; U =

Underground Damage), Contractual Liability or Cross Liability. The **CONTRACTOR** agrees any Self-Insured-Retention or deductible shall not exceed twenty-five thousand ($25,000).

16.8.4 Business Automobile Liability

CONTRACTOR agrees to maintain Business Automobile Liability at a limit of liability not less than one million (**$1,000,000) Each Occurrence**. Coverage shall include bodily injury and property damage liability arising out of the operation, maintenance and use of Any Auto, or All Owned Autos, and Hired Autos, and Non-Owned automobiles. In the event **CONTRACTOR** does not own automobiles, **CONTRACTOR** agrees to maintain coverage for Hired & Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

16.8.5 Contractor's Professional Errors & Omissions Liability

If a City Operational Department requires Professional Errors & Omissions Liability coverage, **CONTRACTOR** agrees to maintain **CONTRACTOR'S** Professional Error's & Omissions Liability at a limit of liability not less than one million (**$1,000,000) Each Occurrence**, two million (**$2,000,000) General Aggregate**. The **CONTRACTOR** agrees the policy shall include a minimum three (3) year Discovery (tail) reporting period, and a Retroactive Date that equals or precedes the effective date of the AGREEMENT, or the performance of services hereunder. The **CONTRACTOR** agrees the Self-Insured-Retention shall not exceed twenty-five thousand ($25,000). This coverage may be provided on a Per-Project Basis.

16.8.6 Inland Marine Builder's Risk Insurance

If a City Operational Department requires Inland Marine Builder's Risk coverage, the **CONTRACTOR**, prior to notice to proceed or commencement of Work, whichever occurs first, agrees to maintain an Inland Marine Builder's Risk insurance coverage form with an amended policy period of no less than twenty-two (22) months or estimated project length whichever is longer, if available, providing coverage to protect the interests of the **CITY**, **CONTRACTOR**, sub-contractors, including property acquired under a sales tax incentive program, property in transit, and property on or off-premises, which shall become part of the Work.

Coverage shall be written on an All-Risk, Replacement Cost, and Completed Value Form basis in an amount at least equal to one-hundred percent (100%) of the projected completed value of the Work, as well as subsequent modifications of that sum due to Change Orders. This policy shall also include Delay Cost coverage for soft costs, which shall at a minimum include additional expenses for interest, legal, consulting, insurance, architectural and engineering, **CONTRACTOR'S** overhead and general conditions, and equipment rental. The period of indemnity shall not be less than twelve (12) months and the limit of Delay Cost coverage not be less than ten percent (10%) of the projected completed value of the Work and shall be a scheduled limit on the policy in addition to a scheduled limit for the hard cost coverage. The waiting period for Delay Cost coverage may not exceed thirty (30) days. Collectively, the scheduled soft cost limit and hard cost limit may equal one-hundred percent (100%) of the projected value of the Work, unless the builder's risk carrier requires the Delay Cost coverage to be in addition to the one hundred percent (100%) projected value of the Work. **CONTRACTOR** agrees to be responsible for reporting increases in the projected completed value of the Work due to Change Orders to its insurance carrier.

The **CONTRACTOR** further agrees that any flat deductible(s) shall not exceed one hundred thousand ($100,000), any wind percentage deductible (when applicable) shall not exceed ten-

percent (10%); and any flood sublimit shall not be less than twenty-five percent (25%) of the projected completed value of the Work for this policy.

The **CONTRACTOR** agrees to endorse the Inland Marine Builder's Risk insurance with a manuscript endorsement eliminating the automatic termination of coverage in the event the building is occupied in whole or in part, or put to its intended use, or partially accepted by **CITY**. The manuscript endorsement shall amend the automatic termination clause to only terminate coverage if the policy expires, is cancelled, the **CITY'S** interest in the building ceases, or the building is accepted or insured by the **CITY**.

The **CONTRACTOR** agrees to endorse the **CITY** as "Additional Insured" on the Inland Marine Builder's Risk Insurance coverage form.

16.8.7 Contractor's Pollution Liability

If a City Operational Department requires Contractor's Pollution Liability coverage, the **CONTRACTOR** agrees to maintain Contractor's Pollution Liability at a limit of liability not less than one million (**$1,000,000) Each Occurrence,** two million (**$2,000,000) General Aggregate**.

16.8.8 Commercial Umbrella/Excess Liability

CONTRACTOR agrees to maintain either a Commercial Umbrella or Excess Liability at a limit of liability not less than five million (**$5,000,000) Each Occurrence**, five million (**$5,000,000) General Aggregate**. The **CONTRACTOR** agrees to endorse the **CITY** as an "Additional Insured" on the Commercial Umbrella/Excess Liability, unless the Commercial Umbrella/Excess Liability provides coverage on a pure/true follow-form basis, or the **CITY** is automatically defined as an Additional Protected Person. The **CONTRACTOR** agrees any Self-Insured-Retention or deductible shall not exceed twenty-five thousand ($25,000).

16.8.9 Additional Insured Endorsements

The **CONTRACTOR** agrees to endorse the **CITY** as an "Additional Insured" on the Commercial General Liability. Contractor shall choose one of the three Endorsement Option stated below. All Endorsements shall be in the form required. All pages of the Endorsement(s) shall be attached. The form of the endorsement(s) shall be:

Option 1:

CG 20 10 10 01
Additional Insured - Owners, Lessees, or Contractors – Scheduled Person or Organization

AND, the additional endorsement of

CG 20 37 07 04
Additional Insured – Owners, Lessees, or Contractors – Completed Operations
shall be required to provide back coverage for the **CONTRACTOR'S** "your work" as defined in the policy and liability arising out of the products-completed operations hazard.

Option 2:

CG 20 10 07 04
Additional Insured - Owners, Lessees, or Contractors – Scheduled Person or Organization

AND, the additional endorsement of

CG 20 37 07 04
Additional Insured – Owners, Lessees, or Contractors – Completed Operations
shall be required to provide back coverage for the **CONTRACTOR'S** "your work" as defined in the policy and liability arising out of the products-completed operations hazard.

Option 3:

GA 4113 11 99
Additional Insured – Owners, Lessees, or Contractors – Scheduled Person or Organization – Your Work

AND, the additional endorsement of

GA 233 02 07
Contractors' Commercial General Liability Broadened – with coverage for Completed Operations in conformance to specific written contract

CONTRACTOR shall attach actual copies of the endorsements.

Additionally, **CONTRACTOR** agrees to endorse the **CITY** as an "Additional Insured" under the Commercial Umbrella / Excess Liability and the Inland Marine Builders Risk Insurance, if required, as also provided herein.

The name of the organization endorsed as Additional Insured for all endorsements shall read "City of Tyler."

16.8.10 Deductibles, Coinsurance Penalties & Self-Insured Retention

CONTRACTOR agrees to be fully and solely responsible for any costs or expenses as a result of a coverage deductible, coinsurance penalty, or self-insured retention; including any loss not covered because of the operation of such deductible, coinsurance penalty, self-insured retention, or coverage exclusion or limitation. For deductible amounts that exceed the amounts stated herein that are acceptable to **CITY**, the **CONTRACTOR** agrees, when requested by **CITY**, to maintain a Commercial Surety Bond in an amount equal to said deductible amount.

16.8.11 Waiver of Subrogation

CONTRACTOR agrees by entering into this written AGREEMENT to a Waiver of Subrogation in favor of the **CITY**, **CONTRACTOR**, sub-contractor, architects, or engineers for each required policy providing coverage during the life of this AGREEMENT. **CONTRACTOR** agrees to notify the insurer and request the policy be endorsed with a Waiver of Transfer of Rights of

Recovery Against Others, or an equivalent endorsement and provide such endorsement to **CITY**. This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition that specifically prohibits such an endorsement, or voids coverage should the **CONTRACTOR** enter into such an agreement on a pre-loss basis.

16.8.12 Right to Revise or Reject

CONTRACTOR agrees the **CITY** reserves the right, but not the obligation, to review or revise any insurance requirement, not limited to limits, coverage and endorsements based on insurance market conditions affecting the availability or affordability of coverage; or changes in the scope of work / specifications affecting the applicability of coverage.

Insurance required herein shall be issued by a company or companies of sound and adequate financial responsibility and authorized to do business in the State of Texas. All policies shall be subject to examination and approval by the City Attorney's Office in the **CITY'S** Legal Department for their adequacy as to form, content, form of protection, and providing company. Additionally, the **CITY** reserves the right, but not the obligation, to review and reject any insurance policies failing to meet the criteria stated herein, or any insurer(s) providing coverage due of its poor financial condition or failure to operate legally in the State of Texas. In such events, **CITY** shall provide **CONTRACTOR** written notice of such revisions or rejections.

16.8.13 No Representation of Coverage Adequacy

The coverage, limits or endorsements required herein protect the primary interests of the **CITY**, and the **CONTRACTOR** agrees in no way should these coverage, limits or endorsements required be relied upon when assessing the extent or determining appropriate types and limits of coverage to protect the **CONTRACTOR** against any loss exposures, whether as a result of the Project or otherwise.

16.8.14 Certificate of Insurance

CONTRACTOR agrees to provide **CITY** with Certificate(s) of Insurance that clearly evidence the **CONTRACTOR'S** insurance contains the minimum coverages, limits, and endorsements set forth herein. A minimum thirty (30) day endeavor to notify due to cancellation or non-renewal of coverage shall be identified on each Certificate(s) of Insurance. In the event the **CITY** is notified that a required insurance coverage will cancel or expire during the period of this AGREEMENT, the **CONTRACTOR** agrees to furnish **CITY** prior to the expiration of such insurance, a new Certificate of Insurance evidencing replacement coverage. When notified by **CITY**, the **CONTRACTOR** agrees to not continue Work pursuant to this AGREEMENT, unless all required insurance remains in effect.

The **CITY** shall have the right, but not the obligation, of prohibiting **CONTRACTOR** from entering the Work site until a new Certificate of Insurance is provided to the **CITY** evidencing the replacement coverage. The **CONTRACTOR** agrees the **CITY** reserves the right to withhold payment to **CONTRACTOR** until evidence of reinstated or replacement coverage is provided to the **CITY**. If the **CONTRACTOR** fails to maintain the insurance as set forth herein, the **CONTRACTOR** agrees the **CITY** shall have the right, but not the obligation, to purchase replacement insurance, which the **CONTRACTOR** agrees to reimburse any premiums or expenses incurred by the **CITY**.

16.8.15 Workers' Compensation & Employer's Liability

A. The **CONTRACTOR** agrees to maintain its own Workers' Compensation Insurance pursuant to statutory limits. *See* TEX. LAB. CODE ANN. Title 5, Subtitle A, Chapter 401; TEX. ADMIN CODE, Title 28, Part 2. (NOTE: Elective exemptions or coverage through an employee leasing arrangement will NOT satisfy this requirement).

B. The **CONTRACTOR** agrees to maintain its own Employer's Liability Insurance at a limit of liability not less than one million **$1,000,000 Bodily Injury by Accident,** one million **$1,000,000 Bodily Injury by Disease Each Occurrence**, one million **$1,000,000 Bodily Injury by Disease Aggregate Limit**.

C. Definitions:

(1) **Certificate of coverage (certificate)** - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a workers' compensation coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

(2) **Duration of the project** - includes the time from the beginning of work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

(3) **Persons providing services on the project ('subcontractor' in § TEX. LAB. CODE ANN. § 406.096)** - includes all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes without limitation independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

D. The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements which meets the statutory requirements of TEX. LAB. CODE ANN. § 401.011(44).

E. The contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract.

F. If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

G. The contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

(1) a certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for

all persons providing services on the project; and

(2) no later than seven days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

H. The contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.

I. The contractor shall notify the **CITY** in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

J. The contractor shall post a notice on each project site informing all persons providing services on the project that they are required to be covered, and stating how a person may verify current coverage and report failure to provide coverage. This notice does not satisfy other posting requirements imposed by the Act or other commission rules. This notice must be printed with a title in at least 30 point bold type and text in at least 19 point normal type, and shall be in both English and Spanish and any other language common to the worker population. The text for the notices shall be in the text, form and manner prescribed by the Texas Workers' Compensation Commission, as shown in Exhibit 1, without any additional words or changes.

K. The contractor shall contractually require each person with whom it contracts to provide services on a project, to:

(1) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of TEX. LAB. CODE ANN. § 401.011(44) for all of its employees providing services on the project, for the duration of the project;

(2) provide to the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;

(3) include in all contracts to provide services on the project the language in subsection J of this section;

(4) provide the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(5) obtain from each other person with whom it contracts, and provide to the contractor:

(a) a certificate of coverage, prior to the other person beginning work on the project; and

(b) prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(6) retain all required certificates of coverage on file for the duration of the project and for one year thereafter;

(7) notify the **CITY** in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

(8) contractually require each person with whom it contracts, to perform as required by

paragraphs (1) - (8) of this subsection, with the certificates of coverage to be provided to the person for whom they are providing services.

L. By signing this contract or providing or causing to be provided a certificate of coverage, the contractor and the person signing this contract is representing to the **CITY** that all employees of the contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

M. The contractor's failure to comply with any of these provisions is a breach of contract by the contractor which entitles the **CITY** to declare the contract void if the contractor does not remedy the breach within ten days after receipt of notice of breach from the **CITY**.

EXHIBIT 1
REQUIRED WORKERS' COMPENSATION COVERAGE

"The law requires that each person working on this site or providing services related to this construction project must be covered by workers' compensation insurance. This includes persons providing, hauling, or delivering equipment or materials, or providing labor or transportation or other service related to the project, regardless of the identity of their employer or status as an employee."

"Call the Texas Workers' Compensation Commission at 512-440-3789 to receive information on the legal requirement for coverage, to verify whether your employer has provided the required coverage, or to report an employer's failure to provide coverage."

N. A person providing services on a project, other than a contractor, shall:

(1) provide coverage for its employees providing services on a project, for the duration of the project based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements which meets the statutory requirements of TEX. LAB. CODE ANN. § 401.011(44);

(2) provide a certificate of coverage as required by its contract to provide services on the project, prior to beginning work on the project;

(3) have the following language in its contract to provide services on the project: 'By signing this contract or providing or causing to be provided a certificate of coverage, the person signing this contract is representing to the **CITY** that all employees of the person signing this contract who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

(4) provide the person for whom it is providing services on the project, prior to the end of the coverage period shown on its current certificate of coverage, a new certificate showing extension of coverage, if the coverage period shown on the certificate of coverage ends during the duration of the project;

(5) obtain from each person providing services on a project under contract to it, and provide as required by its contract:
  (a) a certificate of coverage, prior to the other person beginning work on the project; and
  (b) prior to the end of the coverage period, a new certificate of coverage showing extension of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(6) retain all required certificates of coverage on file for the duration of the project and for one year thereafter;

(7) notify the **CITY** in writing by certified mail or personal delivery, of any change that materially affects the provision of coverage of any person providing services on the project and send the notice within ten days after the person knew or should have known of the change; and

(8) contractually require each other person with whom it contracts to:
  (a) provide coverage based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements for all of its employees providing services on the project, for the duration of the project;
  (b) provide a certificate of coverage to it prior to that other person beginning work on the project;
  (c) include in all contracts to provide services on the project the language in paragraph (3) of this subsection;
  (d) provide, prior to the end of the coverage period, a new certificate of coverage showing extension of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
  (e) obtain from each other person under contract to it to provide services on the project, and provide as required by its contract:
    (i) a certificate of coverage, prior to the other person beginning work on the project; and
    (ii) prior to the end of the coverage period, a new certificate of coverage showing extension of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the contract;
  (f) retain all required certificates of coverage on file for the duration of the project and for one year thereafter;
  (g) notify the **CITY** in writing by certified mail or personal delivery, within ten days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and
  (h) contractually require each person with whom it contracts, to perform as required by this subparagraph and subparagraphs (a)-(g) of this paragraph, with the certificate of coverage to be provided to the person for whom they are providing services.

O. The failure of a person providing services on a project to comply with any of these provisions is a breach of contract by the person providing services on a project which

entitles the **CITY** to declare the contract void if the person providing services on a project does not remedy the breach within ten (10) days after receipt of notice of breach from the **CITY**.

16.9 QUALITY OF MATERIALS AND WORKMANSHIP

16.9.1 Materials Approved for Work

No materials which have been used by the **CONTRACTOR** for any temporary purpose whatsoever are to be incorporated in the permanent structure without written consent of the Project Designer. All materials to be used shall be new.

Unless otherwise stated, where materials or equipment are specified by a trade or brand name, it is not the intention of the **CITY** to discriminate against an equal product of another manufacturer, but rather to set a definite standard of quality or performance, and to establish an equal basis for the evaluation of bids. Where the words "or approved equal", “or accepted equal” or other such expressions are used, they shall be understood to mean that the thing referred to shall be the equivalent of or equal to some other thing, in the opinion or judgment of the Project Designer. Unless otherwise specified, all materials shall be the best of their respective kinds and shall be in all cases fully equal to approved samples. Notwithstanding that the words "or approved equal", “or accepted equal” or other such expressions may be used in the specifications in connection with a material, manufactured article or process, the material, article or process specifically designated shall be used, unless a substitute shall be approved in writing by the Project Designer, and the Project Designer shall have the right to require the use of such specifically designated material, article, or process.

16.9.2 Testing of Materials

Testing of all materials to be incorporated into the project will be made as directed by the Project Designer or **CITY** at the expense of the **CITY**. All retesting will be at the expense of the **CONTRACTOR**. The testing laboratory will be designated by the **CITY** and all materials must meet the specification requirements. For materials furnished by a manufacturer such as reinforcing steel, expansion joint materials, concrete, pipe, miscellaneous steel, cast iron materials, etc., the **CONTRACTOR** may be required to furnish a manufacturer's certificate that the material meets the requirements specified for this project.

All testing performed by the **CITY** shall be for quality assurance purposes only and shall not constitute any part of the **CONTRACTOR’S** quality control program.

16.9.3 Defects and Their Remedies

The Project Representative shall not have the power to waive the obligations of this contract for the furnishing by the **CONTRACTOR** of good material, and of the **CONTRACTOR** performing good Work as herein described, and in full accordance with the plans and specifications. If the Work or any part thereof, or any material brought on the site of the Work for use in the Work or selected for the same, shall be deemed by the Project Representative as unsuitable or not in conformity with the specifications, the **CONTRACTOR** shall, after receipt of written notice thereof from the Project Representative, forthwith remove such material and rebuild or otherwise remedy such Work so that it shall be in full accordance with this contract.

No failure or omission of the Project Representative to discover, object to or condemn any

defective Work or material shall release the **CONTRACTOR** from the obligations to fully and properly perform the contract, including without limitations, the obligation to at once tear out, remove and properly replace the same at any time prior to final acceptance upon the discovery of said defective Work or material; provided, however, that the Project Representative shall, upon request of the **CONTRACTOR**, inspect and accept or reject any material furnished.

Any questioned Work may be ordered taken up or removed for re-examination by the Project Representative prior to final acceptance, and if found not in accordance with the specifications for said Work, all expense of removing, re-examination and replacement shall be borne by the **CONTRACTOR**, otherwise the expense thus incurred shall be allowed as provided for in Section 16.14, "Extra Work and Claims", and shall be paid for by the **CITY**; provided that, where inspection or approval is specifically required by the specifications prior to performance of certain Work, should the **CONTRACTOR** proceed with such Work without requesting prior inspection or approval, the **CONTRACTOR** shall bear all expense of taking up, removing, and replacing this Work if so directed by the Project Representative.

16.9.4 Guarantee

The **CONTRACTOR** shall guarantee the materials furnished and the installation performed for a period of one (1) year of operation after the date of final acceptance by the **CITY**.

In the event a defect is found during the guarantee period, the **CONTRACTOR** will be notified and shall immediately repair the defect, furnishing and installing all materials necessary. The repair shall be executed in a manner satisfactory to the **CITY**. Should the **CONTRACTOR** proceed with such repairs without requesting prior inspection or approval, the **CONTRACTOR** shall bear all expense of taking up, removing, and replacing this Work if so directed by the Project Representative.

The **CONTRACTOR** is to perform any repair immediately when notified by the **CITY** without question or delay because of any doubt as to the probable cause of the defect, regardless of whether the repair is covered by the guarantee. In the event that the defect corrected by the **CONTRACTOR** should be found to be caused by some event or disturbance which occurred after the date of the final acceptance, the responsible party will pay the **CONTRACTOR** for the time and materials used in the repair in accordance with the terms of Section 16.14 "Extra Work and Claims". If the defect necessitating the repair was not found to be caused by a disturbance occurring after the date of the final acceptance, the **CONTRACTOR** shall furnish all labor, equipment, tools, and materials necessary for the repair without any additional payment.

In the event the defect creates an emergency, or if the **CONTRACTOR** fails to begin repair work within a reasonable length of time according to the nature of the defect, the **CITY** reserves the right to perform the repair work by other means. In this event, if the defect is found to be covered by the guarantee, the **CONTRACTOR** shall then pay the **CITY** for the equipment, time, labor, and materials used in accordance with the method of calculating payment for Extra Work as set out in Section 16.14, "Extra Work and Claims".

The period of the guarantee shall be one (1) year of satisfactory service from the date of final acceptance of the Work by the **CITY**. In the event it is necessary to take the improvements out of service because of defective materials or workmanship, the period of guarantee shall be extended until the improvements have been in continuous service for a period of one (1) year.

16.10 MAINTENANCE OF SITE

16.10.1 Protection of Adjoining Property

The **CONTRACTOR** shall take proper means to protect the adjacent or adjoining property or properties in any way encountered, which might be injured or seriously affected by any process of construction to be undertaken under this AGREEMENT, from any damage or injury by reason of said process of construction; and the **CONTRACTOR** shall be liable for any and all claims for such damage on account of the **CONTRACTOR'S** failure to fully protect all adjoining property. The **CONTRACTOR** agrees to indemnify, hold harmless and defend the **CITY** and Project Designer from and against all claims for property damages to any adjacent or adjoining real property arising or growing out of the performance of the contract, to the extent that such damage was caused by the negligent or intentional acts or omissions of **CONTRACTOR**.

The **CONTRACTOR** shall repair all fences, concrete walls, concrete sidewalks, concrete curbs, gravel, asphalt and concrete driveways, signs, culverts, and all other miscellaneous improvements, unless otherwise specified by bid item in the ***Proposal*** or ***Special Conditions***, at no additional expense to the **CITY**, damaged by the **CONTRACTOR** due to the Work on the project, to a condition equal to or better than their condition before construction.

16.10.2 Driveways and Property Access

The **CONTRACTOR** shall keep all driveways and parking areas to properties adjacent to the site of Work open at all times except for the minimum practical time required to install the Work. The timing for pavement cuts shall be coordinated with the Project Representative in advance of pavement cuts in order to assure that property owners and persons using public roadways are inconvenienced as little as possible and that access to private property is maintained at all times. In addition to other methods for maintaining property access as described elsewhere in the specifications, the **CONTRACTOR** shall either backfill all trenches at the end of the day and place a temporary oil sand surface over streets or driveways, or provide a steel traffic plate of sufficient size and thickness to safely bridge open trenches and allow vehicular access on streets or driveways.

The provision of this equipment and its subsequent maintenance and use shall be subsidiary to the various pay items established in the ***Proposal*** for furnishing and installing the Work. The provision and use of the steel traffic plate shall not relieve the **CONTRACTOR** from the obligation to backfill the trench and provide temporary gravel patching in paved areas as quickly as practical per the requirements in the ***Technical Specifications***.

16.10.3 Traffic Control

The safety of the public and the convenience of traffic shall be regarded as of prime importance. The **CONTRACTOR** shall submit a traffic control plan along with the sequence of construction at the scheduled Pre-Construction Conference, if requested by the **CITY**. Unless otherwise directed, all portions of the streets in this project shall be kept open to traffic. It shall be the responsibility of the **CONTRACTOR** to ensure that two-way traffic (minimum 22' wide) on an all-weather surface may safely bypass the construction site and that access is provided to abutting private property. An all-weather surface shall be of a material and depth as defined in the City of Tyler Unified Development Code and approved by the Project Representative.

The **CONTRACTOR** shall plan and execute all Work in a manner that will cause the minimum interference with traffic. The **CONTRACTOR** shall place, and maintain in good condition,

standard barricades at each end of the project and at other locations where traffic is rerouted or blocked from using regular traffic lanes. Where the work on this project creates a safety hazard to the general public, the **CONTRACTOR** shall furnish and erect sufficient barricades and warning signs to warn the public of the danger. The **CONTRACTOR** shall also provide sufficient flares or other emergency lighting to warn the public at night. Barricades, signs, and traffic handling shall be in accordance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD), the latest edition in effect at time of bidding, as adopted by the Texas Department of Transportation (TxDOT).

It shall be the responsibility of the **CONTRACTOR** to furnish, install, and maintain barricades, traffic control devices, signs, and flashers of the size and type specified at locations as shown in the approved traffic control plan throughout the limits of this project from the date of notice to proceed until final acceptance. When directed by the **CITY**, the **CONTRACTOR** shall do the necessary cleanup and finishing immediately after all or a portion of the pavement has been placed, as to allow the **CITY** to provide adequate traffic control to those portions of the completed roadway which will be open to traffic.

Unless specifically provided for under a bid item, barricades, signs and traffic handling shall be furnished, installed, and maintained at the **CONTRACTOR'S** expense.

In case the **CONTRACTOR** fails to provide ingress and egress to private property and/or maintain the proper barricades, signs, and flashers, the **CITY** may provide these services and deduct the cost thereof, including overtime and administrative expenses, from all payments thereafter due the **CONTRACTOR**.

The **CONTRACTOR** shall notify the Project Representative and Traffic Engineer, at least four (4) days (excluding Saturdays, Sundays, and holidays) in advance of beginning the proposed Work, of the **CONTRACTOR'S** intention to close or partially block the street or any part thereof, or of any construction affecting the free flow of traffic.

Should the **CONTRACTOR**, during the Work, reduce an existing two-way roadway to less than twenty-two (22) feet, the **CONTRACTOR** shall provide flagmen and route traffic through the construction area one lane at a time.

A flagman will be required at any time it is necessary for the **CONTRACTOR'S** equipment to move into or across an open traffic lane or at other such times as directed by the Project Representative. A flagman shall be utilized to aid the exit of hauling equipment from open traffic lanes to the work area, and the entry of hauling equipment from the work area to open traffic lanes.

The **CONTRACTOR** shall not remove and/or relocate any regulatory traffic control devices. The Traffic Engineer will be responsible for the removal and/or relocation of all regulatory traffic control devices. Detour routes, as required, will be approved by the Traffic Engineer. The Traffic Engineer will be responsible for the installation of any regulatory traffic control devices that may be required due to the construction of detour routes, excluding warning signs and required warning lights attached thereto.

16.10.4 Erosion Control Plan

Unless otherwise stated in the ***Special Conditions***, the **CONTRACTOR** will sequence construction and proceed in a manner that will minimize erosion. The **CONTRACTOR** will be responsible for installing and maintaining adequate erosion control mechanisms. The

CONTRACTOR shall submit an erosion control plan at the scheduled Pre-Construction Conference, if requested by the **CITY**. Erosion control measures shall be in place prior to beginning earthwork activities. Unless otherwise noted, there will be no bid item for the payment of this Work.

16.10.5 Protection of Survey Monuments

The **CONTRACTOR** shall exercise care to preserve and not disturb existing survey monuments and property corner markers.

16.10.6 Manhole, Clean-Out, and Water Valve Locations

When a **CONTRACTOR** installs or lowers existing manholes, clean-outs, and water valves, it is the **CONTRACTOR'S** responsibility to establish the correct location of these appurtenances for future raising to grade. Any additional work needed to locate these appurtenances will be at the **CONTRACTOR'S** expense.

16.10.7 Water Sprinklers

All lawn water sprinkler systems damaged by the **CONTRACTOR**, whether on private property or in the public right of way, shall be repaired at the **CONTRACTOR'S** expense.

16.10.8 Existing Mailboxes

Unless otherwise noted in the plans and specifications, existing mailboxes along the project site will be removed and relocated as necessary by the **CONTRACTOR**. The **CONTRACTOR** must provide daily access to the mailboxes for the delivery of mail by letter carriers. Unless otherwise noted, there will be no bid item for the payment of this Work.

16.11 GENERAL PROVISIONS

16.11.1 Damages

In the event the **CITY** is damaged in the course of the Work by the act, negligence, omission, mistake or default of the **CONTRACTOR**, or should the **CONTRACTOR** unreasonably delay the progress of the work being done by others on the job so as to cause loss for which the **CITY** becomes liable, then the **CONTRACTOR** shall reimburse the **CITY** for such loss.

16.11.2 Losses From Natural Causes

Unless otherwise specified, all loss or damage to the **CONTRACTOR** arising out of the nature of the Work to be done, or from the action of the elements, or from any unforeseen circumstance in the prosecution of the same, or from unusual obstructions or difficulties which may be encountered in the prosecution of the Work, shall be sustained and borne by the **CONTRACTOR** at the **CONTRACTOR'S** own cost and expense.

16.11.3 Public Utilities

All utility adjustments necessary for the completion of the Work in this contract will be made by the owners of the affected utilities, provided said utilities are not made a part of the scope of this project and incorporated within the limits of this project as may be designated by bid items within the ***Proposal***. The **CONTRACTOR** shall use the utmost care to preserve and prevent damage to existing utilities. If at any time the **CONTRACTOR** damages the utilities in place through negligence or carelessness, the **CONTRACTOR** shall pay for the full cost of repairing such

damages. Underground utilities shown on these plans are drawn based on records, surface evidence, excavations at certain locations, and best recollection. The **CONTRACTOR** is responsible for carefully locating each underground utility prior to start of construction.

16.11.4 Ozone Action Day

The City of Tyler has adopted Ozone Action Day guidelines to be used on days designated as Ozone Actions Days. All outside **CONTRACTORS** will be required to adhere to these guidelines. Local television stations will advise of an "Ozone Action Day" and the **CITY** will announce the action day over the local government access channel the day prior to an action day. In addition, the **CONTRACTOR** may also be notified of an Ozone Action Day by the Project Representative.

On Ozone Action Days, the Project Representative will work with the **CONTRACTOR** to reduce ozone producing precursors by implementing the **CITY'S** Ozone Action Plan. This plan shall include, but not be limited to:

A. Consider work schedules that will reduce equipment and vehicle usage in the morning hours during the normal ozone producing season of May through September.
B. Delay fueling of vehicles until the advisory is over. If fueling is necessary, do so in the late afternoon or early evening. Avoid overfilling the tank and allowing fuel to spill onto the ground. Limit vehicle trips as much as possible. Coordinate activities to avoid duplication of trips. If possible, schedule trips for afternoons.
C. Avoid idling vehicles unnecessarily. Limit use of weed eaters, tractors, lawnmowers, and power tools. Ensure that all vehicles and equipment are tuned and maintained according to manufacturer's tune-up and emissions control standards.
D. Schedule the use of heavy equipment for non-ozone action days. Turn off lights and equipment to reduce power load when vehicles are not in use.
E. Eliminate the use of oil based paints requiring hydrocarbon based solvents on all action days.

16.12 PROSECUTION AND PROGRESS

16.12.1 Time and Order of Completion

It is the meaning and intent of this contract, unless otherwise herein specifically provided, that the **CONTRACTOR** shall be allowed to prosecute the Work at such times and seasons, in such order of precedence, and in such manner as shall be most conducive to economy of construction: provided, however, that the order and the time of prosecution shall be such that the Work shall be completed in full, in accordance with this contract, the plans and specifications, and within the time of completion designated in the ***Standard Form of Agreement***; provided, also, that when the **CITY** is having other work done, either by contract or by its own force, the **CITY** may direct the time and manner of constructing the Work done under this contract, so that conflict will be avoided and the construction of the various works being done for the **CITY** shall be harmonized.

Upon request, the **CONTRACTOR** must, within seven (7) calendar days thereafter, submit a proposed sequence of construction to the Project Designer for review and approval. The **CONTRACTOR** shall also submit, upon request, a construction progress schedule which shall show the order in which the **CONTRACTOR** proposes to carry on the Work, with dates at which the **CONTRACTOR** will start the various parts of the Work, and estimated dates of completion of the various parts. During the course of the Work, the **CONTRACTOR** shall make updates to the construction progress schedule and shall submit the updates to the Project Designer upon

request.

16.12.2 Computation of Contract Time for Completion

The **CONTRACTOR** shall complete the Work in full within the number of working/calendar days, or by the mandatory completion date, stated in the ***Standard Form of Agreement***. For the purpose of computation, working/calendar days will be considered as starting on the tenth (10^{th}) day after the date of the written ***Notice to Proceed***.

16.12.3 Liquidated Damages

The time set forth in the ***Standard Form of Agreement*** for the completion of the Work is an essential element of the contract. For each working/calendar day that any Work shall remain uncompleted after the expiration of the working/calendar days specified in the contract, together with any additional working/calendar days allowed, the amount per day given in the following schedule will be deducted from the money due, or to become due, the **CONTRACTOR**, not as a penalty, but as liquidated damages:

Amount of Contract Total Awarded Construction Amount	Amount of Liquidated Damages to be deducted per Working or Calendar Day
Less than $ 50,000	$ 50
$ 50,001 to $ 100,000	$ 100
$ 100,001 to $ 500,000	$ 200
$ 500,001 to $ 1 million	$ 400
$ 1,000,001 to $ 5 million	$ 1,000
Over $ 5,000,000 (5 million)	0.02%

16.12.4 Extension of Time

Should the **CONTRACTOR** be delayed in the completion of the Work by any act or neglect of the **CITY** or Project Designer, or any employee of either, or by other contractors employed by the **CITY**, or by changes ordered in the Work, or by strikes, lockouts, fires, and unusual delays by common carriers, or unavoidable cause or causes beyond the **CONTRACTOR'S** control, or by any cause which the Project Designer shall decide justifies the delay, then an extension of time shall be allowed for completing the Work, sufficient to compensate for the delay, the amount of the extension to be determined by the Project Designer, provided, however, that the **CONTRACTOR** shall give the Project Designer prompt notice in writing of the cause of such delay.

16.12.5 Inclement Weather

"Unusual Inclement Weather" is defined as a rain event beyond that which is defined as "normal rainfall" or other weather related event which occurs at the site and is of sufficient magnitude to prevent the **CONTRACTOR** from performing units of Work critical to maintaining the progress schedule.

Under a calendar day contract, the **CONTRACTOR** may be granted an extension of time because of unusual inclement weather, including but not limited to unusual rainfall events, which are

beyond the normal rainfall recorded and expected for Tyler, Texas. However, the **CONTRACTOR** will not be granted an extension of time for "normal rainfall", as described below.

"Normal rainfall" compiled by the National Climatic Data Center for Tyler, Texas is considered a part of the calendar day contract, and is not a justification for an extension of time. Listed below are the number of days in each month for which no compensatory days for rainfall events ("Rain Days") in such months may be claimed:

Month	No. Days
January	3
February	4
March	4
April	5
May	4
June	4
July	4
August	2
September	3
October	3
November	4
December	5

Rain days in addition to the baseline rain day determination described above will be measured with the Project Representative's approval at the nearest operational public weather data collection facility to the site, including but not limited to the **CITY'S** early warning flood gauge system.

The **CONTRACTOR** may receive credit in any month for unusual inclement weather, and specifically for any rain days in that month which exceed the number of rain days allocated to that month, if a claim is made and the weather event meets the definition for unusual inclement weather, and as applicable, such claimed day is a day on which Work critical to maintaining the progress schedule is scheduled to be performed and is otherwise capable of being performed.

16.12.6 Hindrances and Delays

No claims shall be made by the **CONTRACTOR** for damages resulting from hindrances or delays from any cause, except where the Work is stopped by order of the **CITY** or their representatives during the progress of any portion of the Work embraced in this contract. In case said Work shall be stopped by the act of the **CITY** or their representatives, then such expense, in the judgment of the Project Designer, as caused by such stoppage of said Work shall be paid by the **CITY** to the **CONTRACTOR**.

16.13 MEASUREMENT AND PAYMENT

16.13.1 Quantities and Measurements

No extra or custom measurements of any kind will be allowed, but the actual measured and/or computed length, area, solid contents, number and weight only shall be considered, unless otherwise specifically provided.

16.13.2 Estimated Quantities

This AGREEMENT, including the specifications, plans and ***Proposal*** is intended to show clearly all Work to be done and material to be furnished hereunder. Where the estimated quantities are shown for the various classes of Work to be done and material to be furnished under this contract, they are approximate and are to be used only as a basis for estimating the probable cost of the Work and for comparing the proposals offered for the Work. It is understood and agreed that the actual amount of Work to be done and material to be furnished under this contract may differ somewhat from these estimates, and that where the basis for payment under this contract is the unit price method, payment shall be for the actual amount of such Work done and the material furnished.

Where payment is based on the unit price method, the **CONTRACTOR** will make no claim for damages, anticipated profits or otherwise on account of any differences which may be found between the quantities of Work actually done, the material actually furnished under this contract and the estimated quantities contemplated and contained in the ***Proposal***; provided, however, that in case the actual quantity of any major item should become as much as twenty percent (20%) more than, or twenty percent (20%) less than the estimated or contemplated quantity for such items, then either party to this AGREEMENT, upon demand, shall be entitled to a revised consideration upon the portion of the Work above or below twenty percent (20%) of the estimated quantity.

A "Major Item" shall be construed to be any individual bid item incurred in the ***Proposal*** that has a total cost equal to or greater than five percent (5%) of the total contract cost, computed on the basis of the ***Proposal*** quantities and the contract unit prices.

When “plan quantity” is indicated for a bid item, **CONTRACTOR** shall be paid the amount specified in the contract documents without any measurement.

Any revised consideration is to be determined by agreement between the parties, otherwise by the terms of this AGREEMENT, as provided in Section 16.14, "Extra Work and Claims".

16.13.3 Price of Work

In consideration of the furnishing of all the necessary labor, equipment and material, and the completion of all Work by the **CONTRACTOR**, and on the completion of all Work and of the delivery of all material embraced in this contract in full conformity with the specifications and stipulations herein contained, the **CITY** agrees to pay the **CONTRACTOR** the prices set forth in the ***Proposal*** hereto attached, which has been made a part of this contract. The **CONTRACTOR** hereby agrees to receive such prices in full for furnishing all material and all labor required for the aforesaid Work, also for all expenses incurred, and for well and truly performing the same and the whole thereof in the manner and according to this AGREEMENT.

Where alternate methods of payment are allowed, the method of payment shall be as shown in the ***Proposal***.

16.13.4 Arrears

No money shall be paid by the **CITY**, upon any claims, debt, demand, or account whatsoever, to any person, firm, or corporation who is in arrears to the City of Tyler for taxes; and the **CITY** shall be entitled to counterclaim and offset against any such debt, claim, demand, or account in the amount of taxes so in arrears, and no assignment or transfers of such debt, claim, demand, or

account after the said taxes are due, shall affect the right of the **CITY** to do so offset the said taxes against the same.

16.13.5 Payments Withheld

The **CITY** may, on account of subsequently discovered evidence, withhold or nullify the whole or part of any certificate to such extent as may be necessary to be protected from loss on account of:

A. Defective Work not remedied.
B. Claims filed or reasonable evidence indicating probable filing of claims.
C. Failure of the **CONTRACTOR** to make payments properly to sub-contractors or for material or labor.
D. Damage to the **CITY** or another contractor.
E. Reasonable doubt that the Work can be completed for the unpaid balance of the contract amount.
F. Reasonable indication that the Work will not be completed within the contract time.
G. Failure to submit a construction progress schedule or to submit updates to the construction progress schedule upon request of the **CITY**.

When the above grounds are removed or the **CONTRACTOR** provides a Surety Bond satisfactory to the **CITY**, which will protect the **CITY** in the amount withheld, payment shall be made for amounts withheld because of them.

16.13.6 Partial Payments

On or before the tenth (10^{th}) day of each month, the **CONTRACTOR** shall prepare and submit to the Project Designer for review and approval a statement showing as completely as practicable the total value of the Work done by the **CONTRACTOR** up to and including the last day of the preceding month; said statement shall also include the value of all sound materials delivered on the site of the Work that are to be fabricated into the Work.

The **CITY** shall then pay the **CONTRACTOR** the total amount of the approved statement, less five percent (5%) or ten percent (10%) of the amount thereof, which five percent (5%) or ten percent (10%) shall be retained until final payment, and further less all previous payments and all further sums that may be retained by the **CITY** under the terms of this AGREEMENT. If the contract amount is less than four-hundred thousand ($400,000), ten percent (10%) of the approved statement will be retained. If the contract amount is four-hundred thousand ($400,000) or greater, five percent (5%) of the approved statement will be retained. It is understood, however, that in case the whole Work be near to completion and some unexpected and unusual delay occurs due to no fault or neglect on the part of the **CONTRACTOR**, the **CITY** may, upon written recommendation of the Project Designer, pay a reasonable and equitable portion of the retained percentage to the **CONTRACTOR**, or the **CONTRACTOR** at the **CITY'S** option, may be relieved of the obligation to fully complete the Work and, thereupon, the **CONTRACTOR** shall receive payment of the balance due under the contract subject only to the conditions stated under Section 16.13.11, "Final Payment".

16.13.7 Records of Materials Purchased

On or before the tenth (10^{th}) day of each month, the **CONTRACTOR** shall furnish to the Project Designer, one copy of all invoices for materials furnished to be incorporated into the Work, plus a statement of all materials previously included on monthly estimates and incorporated into the Work during the preceding month. This information is to be used to determine the value of

materials on hand to be included in the monthly estimate for periodic payments.

If the **CONTRACTOR** fails to furnish this information, no materials shall be included on the monthly estimates until they are permanently incorporated into the Work.

16.13.8 Use of Completed Portions

The **CITY** shall have the right to take possession of and use any completed or partially completed portions of the Work, notwithstanding the time for completing the entire Work or such portions may not have expired, but such taking possession and use shall not be deemed an acceptance of any Work not completed in accordance with the contract documents. If such prior use increases the cost of or delays the Work, the **CONTRACTOR** shall be entitled to such extra compensation, or extension of time, or both, as the Project Designer may determine.

16.13.9 Substantial Completion

The **CONTRACTOR** shall notify the Project Representative when, in the **CONTRACTOR'S** opinion, the Work is substantially complete and when so notifying the Project Representative, the **CONTRACTOR** shall furnish to the Project Representative in writing a detailed list of unfinished Work. The Project Representative will review the **CONTRACTOR'S** list of unfinished Work and will add thereto such items as the **CONTRACTOR** has failed to include. The "substantial completion" of the structure or facility shall not excuse the **CONTRACTOR** from performing all of the Work undertaken, whether of a minor or major nature, and thereby completing the structure or facility in accordance with the contract documents.

16.13.10 Final Completion and Acceptance

When all Work has been completed on this contract:

A. The **CONTRACTOR** shall clean and remove from the site of the Work, all surplus and discarded material, temporary structures and debris of every kind. The **CONTRACTOR** shall leave the site of the Work in a neat and orderly condition equal to or better than that which originally existed.

B. The **CONTRACTOR** shall furnish to the Project Designer a notification stating that all Work has been completed in accordance with the plans and specifications.

C. Final inspection will be made. If the Work is found to be incomplete or defective, the **CONTRACTOR** shall take whatever measures as are necessary to complete such Work or remedy such deficiencies.

D. The **CONTRACTOR** shall pay all bills for materials and labor which were incurred in performance of this contract and shall file with the **CITY** a notarized ***Contractor's Affidavit of Bills Paid***. In the event the **CONTRACTOR** is unable to pay all bills before receiving final payment, the **CONTRACTOR** shall furnish to the **CITY** an affidavit that all bills are paid except those listed in the affidavit. The list of unpaid bills in the affidavit shall include the amount owed and what the bill is for. This affidavit shall further certify that the **CITY** has the **CONTRACTOR'S** permission to make out separate checks jointly to the **CONTRACTOR** and the company or person to whom each bill is owed. The **CONTRACTOR** shall also provide the **CITY** with applicable Waiver and Release forms (*conditional/unconditional*) covering all labor, services, equipment, or materials furnished to property covered under this Agreement or to persons with whom **CONTRACTOR** contracted with in the performance of this Agreement. A waiver and release given by a **CONTRACTOR** shall substantially comply with the applicable form described in Tex. Prop. Code § 53.284, subsections (d) - (e).

E. The **CONTRACTOR** shall provide consent of surety, if any, to final payment. If surety is

not provided, the **CONTRACTOR** shall provide complete and legally effective releases or waivers (satisfactory to **CITY**) of all claims arising out of or filed in connection with the Work.

F. The **CONTRACTOR** shall furnish to the **CITY** a one (1) year maintenance bond for one hundred percent (100%) of the total contract, in favor of the **CITY**.

If the Work is found to be complete in accordance with the contract documents and the ***Contractor's Affidavit of Bills Paid*** *and* applicable ***Waiver and Release forms*** have been filed with the **CITY**, written notice of final acceptance will be made by the **CITY** and final payment will be made in accordance with the terms of the contract documents.

16.13.11 Final Payment

Upon receipt of the notification of final acceptance, the Project Designer shall proceed to make final measurements and prepare a final statement of the value of all Work performed and materials furnished under the terms of the AGREEMENT and shall certify same to the **CITY**. The **CITY** shall pay to the **CONTRACTOR** the balance due the **CONTRACTOR** under the terms of this AGREEMENT, provided the **CONTRACTOR** has fully performed all contractual obligations under the terms of this contract; and said payment shall become due in any event upon said performance by the **CONTRACTOR**. Neither the written notice of final acceptance nor the final payment, nor any provision in the contract documents, shall relieve the **CONTRACTOR** of the obligation for fulfillment of any warranty which may be required.

16.14 EXTRA WORK AND CLAIMS

16.14.1 Changes and Alterations

The **CITY** may make such additions, deletions or revisions as the **CITY** may see fit, in the line, grade, form, dimensions, plans or materials for the Work herein contemplated, or any part thereof, either before or after the beginning of the construction, without affecting the validity of this contract and the accompanying ***Statutory Performance and Maintenance Bond*** and ***Payment Bonds.***

If such changes or alterations diminish the quantity of the Work to be done, they shall not constitute the basis for a claim for damages, or anticipated profits on the Work that may be dispensed with, except as provided for unit price items under Section 16.13, "Measurement and Payment." If the amount of Work is increased, and the Work can fairly be classified under the specifications, such increase shall be paid for according to the quantity actually done and at the unit price, if any, established for such Work under this contract, except as provided for unit price items under Section 16.13, "Measurement and Payment"; otherwise, such additional Work shall be paid for as provided under Section 16.14, "Extra Work and Claims". In case the **CITY** shall make such changes or alterations as shall make useless any Work already done or material already furnished or used in said Work, then the **CITY** shall recompense the **CONTRACTOR** for any material or labor so used, and for any actual loss occasioned by such change, due to actual expenses incurred in preparation for the Work as originally planned.

16.14.2 Change Orders

Without invalidating this AGREEMENT, the **CITY** may, at any time or from time to time, order additions, deletions or revisions to the Work; such changes will be authorized by change order to be prepared by the Project Designer for execution by the **CITY** and the **CONTRACTOR**. The

change order shall set forth the basis for any change in contract price, as hereinafter set forth for Extra Work, and any change in contract time which may result from the change.

In the event the **CONTRACTOR** shall refuse to execute a change order which has been prepared by the Project Designer and executed by the **CITY**, the Project Designer may in writing instruct the **CONTRACTOR** to proceed with the Work as set forth in the change order and the **CONTRACTOR** may make claim against the **CITY** for Extra Work involved therein, as hereinafter provided.

16.14.3 Minor Changes

The Project Representative may authorize minor changes in the Work not inconsistent with the overall intent of the contract documents and not involving an increase in contract price by field order. If the **CONTRACTOR** believes that any minor change or alteration authorized by the Project Representative involves Extra Work and entitles the **CONTRACTOR** to an increase in the contract price, the **CONTRACTOR** shall make written request to the Project Designer for a written change order.

In such case, the **CONTRACTOR,** by copy of the **CONTRACTOR'S** communication to the Project Designer or otherwise in writing, shall advise the **CITY** of the **CONTRACTOR'S** request to the Project Designer for a written change order and that the Work involved may result in an increase in the contract price.

Any request by the **CONTRACTOR** for a change in contract price shall be made prior to beginning the Work covered by the proposed change.

16.14.4 Extra Work

It is agreed that the basis of compensation to the **CONTRACTOR** for Work either added or deleted by a change order or for which a claim for Extra Work is made shall be determined by one or more of the following methods:

Method (A) - By agreed unit prices; or
Method (B) - By agreed lump sum; or
Method (C) - If neither Method (A) nor Method (B) be agreed upon before the Extra Work is commenced, then the **CONTRACTOR** shall be paid the "actual field cost" of the Work, plus fifteen percent (15%).

In the event said Extra Work be performed and paid for under Method (C), then the provisions of this paragraph shall apply and the "actual field cost" is hereby defined to include the cost to the **CONTRACTOR** of all workers, such as foreman, timekeepers, mechanics and laborers, and materials, supplies, trucks, rentals on machinery and equipment, for the time actually employed or used on such Extra Work, plus actual transportation charges necessarily incurred, together with all power, fuel, lubricants, water and similar operating expenses, also all necessary incidental expenses incurred directly on account of such Extra Work, including Social Security, payroll taxes and other benefits, and, a rateable proportion of premiums on ***Performance and Maintenance Bond*** and ***Payment Bonds***, Public Liability and Property Damage and Worker's Compensation, and all other insurance as may be required by any law or ordinance, or directed by the **CITY**, or by them agreed to. The Project Designer may direct the form in which accounts of the "actual field cost" shall be kept and the records of these accounts shall be made available to the Project Designer.

The Project Designer or **CITY** may also specify in writing, before the Work commences, the method of doing the work and the type and kind of machinery and equipment to be used; otherwise these matters shall be determined by the **CONTRACTOR**. Unless otherwise agreed or specified, the prices for the use of machinery and equipment shall be determined by using one hundred percent (100%) of the latest schedule of Equipment Ownership Expense adopted by the Associated General Contractors of America. Where practicable the terms and prices for the use of machinery and equipment shall be incorporated in the written Extra Work order. The fifteen percent (15%) of the "actual field cost" to be paid the **CONTRACTOR** shall cover and compensate the **CONTRACTOR** for profit, overhead, general superintendence and field office expense, and all other elements of cost and expense not embraced within the "actual field cost" as herein defined, except where the **CONTRACTOR'S** camp or field office must be maintained primarily on account of such Extra Work; then the cost to maintain and operate the same shall be included in the "actual field cost".

No claim for Extra Work of any kind will be allowed unless ordered in writing by the Project Designer. In case any orders or instructions, either oral or written, appear to the **CONTRACTOR** to involve Extra Work for which the **CONTRACTOR** should receive compensation or an adjustment in the construction time, the **CONTRACTOR** shall make written request to the Project Designer for written order authorizing such Extra Work. Should a difference of opinion arise as to what does or does not constitute Extra Work, or as to the payment therefore, and the Project Designer insists upon its performance, the **CONTRACTOR** shall proceed with the Work after making written request for written order and shall keep an accurate account of the "actual field cost" thereof, as provided under Method (C).

16.14.5 Time of Filing Claims

All questions of dispute or adjustment presented by the **CONTRACTOR** shall be in writing and filed with the Project Designer within thirty (30) calendar days after the Project Designer has given any directions, order or instruction to which the **CONTRACTOR** desires to take exception. The Project Designer shall reply within thirty (30) calendar days to such written exceptions by the **CONTRACTOR** and render the final decision in writing. It is further agreed that final acceptance of the Work by the **CITY** and the acceptance by the **CONTRACTOR** of the final payment shall be a bar to any claims by either party, except where noted otherwise in the contract documents.

16.15 ABANDONMENT OF CONTRACT

16.15.1 Abandonment by Contractor

Absence of the **CONTRACTOR** from the project for more than fourteen (14) consecutive calendar days, without written consent from the **CITY**, or if the **CONTRACTOR** fails to perform the Work in accordance with the contract documents, including but not limited to, failure to supply sufficient skilled workmen or suitable materials or equipment or failure to adhere to the progress schedule, will constitute abandonment of the project. In case the **CONTRACTOR** should abandon and fail or refuse to resume work within ten (10) calendar days after written notification from the **CITY**, or if the **CONTRACTOR** fails to comply with the orders of the Project Representative, when such orders are consistent with the contract documents, then, and in that case, where performance and payment bonds exist, the Sureties on these bonds shall be notified in writing and directed to complete the Work, and a copy of said notice shall be delivered to the **CONTRACTOR**.

After receiving said notice of abandonment the **CONTRACTOR** shall not remove from the Work any machinery, equipment, tools, materials or supplies then on the job, but the same, together with any materials and equipment under contract for the Work, may be held for use on the Work by the **CITY** or the Surety on the performance bond, or another **CONTRACTOR** in completion of the Work; and the **CONTRACTOR** shall not receive any rental or credit (except when used in connection with Extra Work, where credit shall be allowed as provided for under Section 16.14, "Extra Work and Claims"), it being understood that the use of such equipment and materials will ultimately reduce the cost to complete the Work and be reflected in the final settlement.

Where there is no performance bond provided or in case the Surety should fail to commence compliance with the notice for completion herein before provided for, within ten (10) calendar days after service of such notice, then the **CITY** may provide for completion of the Work in either of the following elective manners:

A. The **CITY** may thereupon employ such force of men and use such machinery, equipment, tools, materials and supplies as said **CITY** may deem necessary to complete the Work and charge the expense of such labor, machinery, equipment, tools, materials and supplies to said **CONTRACTOR**, and expense so charged shall be deducted and paid by the **CITY** out of such moneys as may be due, or that may thereafter at any time become due to the **CONTRACTOR** under and by virtue of this AGREEMENT. In case such expense is less than the sum which would have been payable under this contract, if the same had been completed by the **CONTRACTOR**, then said **CONTRACTOR** shall not receive the difference. In case such expense is greater than the sum which would have been payable under this contract, if the same had been completed by said **CONTRACTOR**, then the **CONTRACTOR** and/or the **CONTRACTOR'S** Surety shall pay the amount of such excess to the **CITY**; or

B. The **CITY,** under sealed bids, may let the contract for the completion of the Work under substantially the same terms and conditions which are provided in this contract. In case any increase in cost to the **CITY** under the new contract as compared to what would have been the cost under this contract, such increase shall be charged to the **CONTRACTOR** and the Surety shall be and remain bound therefor. However, should the cost to complete any such new contract prove to be less than what would have been the cost to complete under this contract, the **CONTRACTOR** and/or the **CONTRACTOR'S** Surety shall not be credited therewith.

When the Work shall have been substantially completed the **CONTRACTOR** and the **CONTRACTOR'S** Surety shall be so notified and notifications of completion and final acceptance, as provided herein above, shall be issued. A complete itemized statement of the contract accounts, certified to by the Project Designer as being correct, shall then be prepared and delivered to the **CONTRACTOR** and the **CONTRACTOR'S** Surety, whereupon the **CONTRACTOR** and/or the **CONTRACTOR'S** Surety, shall pay the balance due as reflected by said statement, within fifteen (15) calendar days after the date of such notification of completion.

In the event the statement of accounts shows that the cost to complete the Work is less than that which would have been the cost to the **CITY** had the Work been completed by the **CONTRACTOR** under the terms of this contract; or when the **CONTRACTOR** and/or the **CONTRACTOR'S** Surety shall pay the balance shown to be due by them to the **CITY**, then all machinery, equipment, tools, materials or supplies left on the site of the Work shall be turned over to the **CONTRACTOR** and/or the **CONTRACTOR'S** Surety. Should the cost to complete the Work exceed the contract price, and the **CONTRACTOR** and/or the **CONTRACTOR'S** Surety fail to pay the amount due the **CITY** within the time designated herein above, and there remains

any machinery, equipment, tools, materials or supplies on the site of the Work, notice thereof, together with an itemized list of such equipment and materials, shall be mailed to the **CONTRACTOR** and the **CONTRACTOR'S** Surety at the respective addresses designated in this contract, provided, however, that actual written notice given in any manner will satisfy this condition. After mailing, or other giving of such notice, such property shall be held at the risk of the **CONTRACTOR** and the **CONTRACTOR'S** Surety subject only to the duty of the **CITY** to exercise ordinary care to protect such property. After fifteen (15) calendar days from the date of said notice, the **CITY** may sell such machinery, equipment, tools, materials or supplies and apply the net sum derived from such sale to the credit of the **CONTRACTOR** and the **CONTRACTOR'S** Surety. Such sale may be made at either public or private sale, with or without notice, as the **CITY** may elect. The **CITY** shall release any machinery, equipment, tools, materials, or supplies, which remain on the Work, and belong to persons other than the **CONTRACTOR** or the **CONTRACTOR'S** Surety, to their proper owners. The books on all operations provided herein shall be open to the **CONTRACTOR** and the **CONTRACTOR'S** Surety.

Section 17 SPECIAL CONDITIONS

Special Conditions of Agreement for Tyler Capital Improvement Project (CIP) Contracts

Check Here if this Section is NOT Used ☐

[Insert Special Conditions Here]

Section 17 SPECIAL CONDITIONS

The Contractor shall abide by the following conditions:

1. The selected bidder shall submit a Contractors Qualification Statement with the Post Bid Information (if not already on file at the City of Tyler).

Measurement and Payment

Summary

A. This Section defines the method of measurement and basis of payment for each item listed in the Bid Proposal. It supplements the City of Tyler General Conditions and the technical specifications. If a conflict exists, the order of precedence established by the Contract Documents governs.
B. The Contract unit prices and lump sum prices constitute full compensation for furnishing all labor, supervision, materials, equipment, tools, transportation, testing, permits, coordination, temporary work, overhead, profit, and incidentals required to complete the Work, unless expressly stated otherwise.

General Measurement Requirements

A. Unit-price quantities will be based on the actual accepted Work completed within the limits shown on the Drawings or authorized in writing by the Engineer.
B. Linear measurements will be taken horizontally along the centerline or designated alignment of the completed item. Area measurements will be based on the finished plan dimensions of accepted Work. Overruns outside authorized limits, waste, shrinkage, forming tolerances, and work performed for the Contractor's convenience will not be measured.
C. Each measured item must be complete, in place, tested where required, and accepted before payment. Corrective work, removal and replacement of defective work, and restoration resulting from Contractor operations are not separately payable.
D. Work shown or required by the Contract Documents but not listed as a separate Bid Item is subsidiary to the item or items with which it is most closely associated.
E. Sawcutting, excavation, subgrade preparation, compaction, forming, reinforcing steel, dowels, joints, curing, protection, testing, cleanup, hauling, disposal, and restoration are included in the applicable item unless specifically provided as a separate Bid Item.

Measurement and Payment by Bid Item

Bid Item 1 Mobilization, Bonds, and Insurance

A. **Measurement.** Measured as one lump sum for the entire Project. No additional measurement will be made for remobilization between the separate project locations or for remobilization caused by the Contractor's sequencing.
B. **Payment.** Paid on a lump sum basis. Progress payments may be made in proportion to documented mobilization, bond, and insurance costs and overall project progress. The final portion is payable with final completion and demobilization. The item includes

bonds, insurance, permits assigned to the Contractor, mobilization, demobilization, temporary facilities, project administration, and restoration of staging and storage areas.

Bid Item 2 4-Inch Concrete Sidewalk

A. **Measurement.** Measured by the square foot of accepted 4-inch-thick concrete sidewalk, based on finished plan dimensions. Width changes do not create separate classifications.
B. **Payment.** Paid at the Contract unit price per square foot. The item includes excavation, subgrade preparation, utility relocation or adjustment, concrete, reinforcement, forms, dowels, joints, curing, tie-ins, edge finishing, and incidental grading. Separate payment will not be made for reinforcing steel or thickened edges unless shown under another Bid Item.

Bid Item 3 6-Inch Concrete Sidewalk

A. **Measurement.** Measured by the square foot of accepted 6-inch-thick concrete sidewalk, based on finished plan dimensions. Width changes do not create separate classifications.
B. **Payment.** Paid at the Contract unit price per square foot. The item includes excavation, subgrade preparation, utility relocation or adjustment, concrete, reinforcement, forms, dowels, joints, curing, tie-ins, edge finishing, and incidental grading. Separate payment will not be made for reinforcing steel or thickened edges unless shown under another Bid Item. Integral curb or drop wall is paid separately only where identified under Bid Items 6, 7, or 8.

Bid Item 4 6-Inch Concrete Driveway with Curb

A. **Measurement.** Measured by the square foot of accepted 6-inch-thick concrete driveway pavement, including the integral driveway curb within the limits shown on the Drawings.
B. **Payment.** Paid at the Contract unit price per square foot. The item includes driveway pavement, integral curb, reinforcement, dowels, joints, transitions, sawcut tie-ins, excavation, subgrade preparation, curing, and maintaining property access. Removal is paid separately only where included under Bid Item 19 or 20.

Bid Item 5 6-Inch Concrete Bus Stop Pad

A. **Measurement.** Measured by the square foot of accepted 6-inch-thick concrete bus stop pad, based on finished plan dimensions.
B. **Payment.** Paid at the Contract unit price per square foot. The item includes excavation, subgrade preparation, reinforcement, concrete, forms, joints, curing, transitions to adjacent sidewalk, and coordination required to provide a complete pad.

Bid Item 6 Concrete Drop Wall for Sidewalk

A. **Measurement.** Measured by the linear foot along the face or alignment of accepted concrete drop wall specifically designated on the Drawings.
B. **Payment.** Paid at the Contract unit price per linear foot. The item includes wall concrete, footing or thickened section shown in the details, reinforcement, excavation, forms,

dowels, drainage openings if detailed, finish, curing, and backfill. Sidewalk slab area is measured separately under Bid Item 2 or 3.

Bid Item 7 Concrete Sidewalk Curb (6-Inch), Poured Integrally with Sidewalk

A. **Measurement.** Measured by the linear foot along the curb line where the integral sidewalk curb has a nominal exposed height of 6 inches or less.
B. **Payment.** Paid at the Contract unit price per linear foot in addition to the applicable sidewalk area. The item includes additional concrete, reinforcement, forming, finishing, joints, and labor required to construct the curb monolithically with the sidewalk. The sidewalk area measurement includes the full constructed width, including the curb width.

Bid Item 8 Concrete Sidewalk Curb (7 to 12-Inches), Poured Integrally with Sidewalk

A. **Measurement.** Measured by the linear foot along the curb line where the integral sidewalk curb has an exposed height greater than 6 inches and not more than 12 inches.
B. **Payment.** Paid at the Contract unit price per linear foot in addition to the applicable sidewalk area. The item includes additional concrete, reinforcement, forming, finishing, joints, and labor required to construct the taller curb section monolithically with the sidewalk. The sidewalk area measurement includes the full constructed width, including the curb width.

Bid Item 9, 10, 11 4', 5', 6' Wide Concrete Curb Ramp

A. **Measurement.** Measured as each complete, accepted curb ramp installation, regardless of ramp configuration, at a location shown on the Drawings.
B. **Payment.** Paid at the Contract unit price per each. The item includes ramp, landing, flares or returned curbs, gutter transition, detectable warning surface, reinforcement, excavation, subgrade preparation, utility relocation or adjustment, forms, joints, dowels, sawcutting, tie-ins, minor grading, and accessibility corrections required for acceptance. Adjacent sidewalk beyond the ramp limits and separately identified curb and gutter replacement are paid under their respective items.

Bid Item 12 6' Driveway Ramp

A. **Measurement.** Measured as each complete, accepted ramp installation, regardless of ramp configuration, at a location shown on the Drawings.
B. **Payment.** Paid at the Contract unit price per each. The item includes ramp, landing, gutter transition, reinforcement, excavation, subgrade preparation, utility relocation or adjustment, forms, joints, dowels, sawcutting, tie-ins, minor grading, and accessibility corrections required for acceptance. Adjacent sidewalk beyond the ramp limits and separately identified curb and gutter replacement are paid under their respective items.

Bid Item 13 Rehabilitate Existing Non-Compliant Concrete Curb Ramp

A. **Measurement.** Measured as each existing curb ramp location rehabilitated and accepted in accordance with the specific limits and corrective work shown on the Drawings.

B. **Payment.** Paid at the Contract unit price per each. The item includes selective demolition, surface preparation, concrete modification or replacement, detectable warning replacement, joint work, minor curb or gutter adjustments, patching only where expressly permitted, grading, and all work necessary to bring the identified ramp into compliance. Work extending beyond the rehabilitation limits and directed as added work will be paid under applicable unit prices or by Change Order.

Bid Item 14 Concrete Curb and Gutter

A. **Measurement.** Measured by the linear foot along the face of accepted concrete curb and gutter.
B. **Payment.** Paid at the Contract unit price per linear foot. The item includes excavation, subgrade preparation, concrete, reinforcement and dowels where shown, forms, joints, finishing, curing, tie-ins, and testing. Removal is paid separately under Bid Item 20 where identified.

Bid Item 15 Concrete Sidewalk Underdrain

A. **Measurement.** Measured as each complete sidewalk underdrain assembly installed and accepted at the location shown on the Drawings.
B. **Payment.** Paid at the Contract unit price per each. The item includes removal of conflicting existing drainage feature where shown, excavation, bedding, pipe or formed channel, fittings, grate and frame, concrete encasement or apron, connections, backfill, surface restoration, and compliance with accessibility requirements for openings and surface transitions.

Bid Item 16 Pedestrian Crosswalk Striping (Longitudinal Bar)

A. **Measurement.** Measured by the linear foot of each accepted longitudinal bar crosswalk, measured along the centerline of the pedestrian pathway.
B. **Payment.** Paid at the Contract unit price per linear foot. The item includes layout, surface preparation, pavement marking material, glass beads where required, masking, and removal of conflicting markings where shown.

Bid Item 17 Stop Line Striping

A. **Measurement.** Measured as each complete stop line installed and accepted at the location and dimensions shown on the Drawings.
B. **Payment.** Paid at the Contract unit price per each. The item includes layout, surface preparation, full width and length of marking, pavement marking material, and glass beads where required.

Bid Item 18 Pedestrian Crosswalk Signage

A. **Measurement.** Measured as each complete sign assembly installed and accepted. Multiple panels mounted on one post constitute one assembly.

B. **Payment.** Paid at the Contract unit price per each sign assembly. The item includes sign panels, posts, foundations, mounting hardware, excavation, backfill, restoration, removal of replaced signs where shown, and coordination of final placement.

Bid Item 19 Remove and Dispose of Existing Pavement

A. **Measurement.** Measured by the square foot of existing concrete, asphalt, brick, gravel, or other pavement removed within authorized limits, based on plan dimensions.
B. **Payment.** Paid at the Contract unit price per square foot. The item includes sawcutting, breaking, excavation, loading, hauling, lawful disposal, removal of reinforcement, and cleanup.

Bid Item 20 Remove and Dispose of Existing Concrete Curb and Gutter

A. **Measurement.** Measured by the linear foot along the face of existing concrete curb and gutter removed within authorized limits.
B. **Payment.** Paid at the Contract unit price per linear foot. The item includes sawcutting, breaking, loading, hauling, lawful disposal, removal of reinforcement and dowels, and cleanup.

Bid Item 21 Site Grading

A. **Measurement.** Measured as one lump sum for grading not included within another Bid Item and completed throughout the Project limits.
B. **Payment.** Paid on a lump sum basis in proportion to accepted grading progress. The item includes stripping, excavation and embankment not otherwise paid, shaping, moisture conditioning, compaction, fine grading, drainage tie-ins, disposal of excess material, import of ordinary fill needed to achieve plan grades, and restoration of disturbed areas other than sod and irrigation paid separately.

Bid Item 22 Block Sod to Match Existing Site Sod

A. **Measurement.** Measured by the square foot of accepted block sod installed within authorized disturbed areas.
B. **Payment.** Paid at the Contract unit price per square foot. The item includes matching the existing turf type at each site, bed preparation, topsoil needed for establishment, fertilizer, delivery, placement, rolling, watering, maintenance through acceptance, and replacement of dead or unacceptable sod.

Bid Item 23 Irrigation Repair

A. **Measurement.** No quantity measurement is made. Work is performed only when authorized in writing by the City and documented by itemized invoices, labor, equipment, and material records.
B. **Payment.** Paid from the stipulated $10,000 allowance for actual authorized costs in accordance with the Contract provisions for allowance or force account work. The allowance includes investigation, removal, relocation, repair, replacement, testing, and restoration of existing irrigation systems affected by the Work. Unused allowance

remains with the City. Contractor overhead and markups, if permitted, must follow the General Conditions and may not cause payment to exceed the allowance without Change Order.

Bid Item 24 Tree Removal and Protection Plan and Implementation

A. **Measurement.** Measured as one lump sum for the complete tree removal and protection effort shown or required for the Project.
B. **Payment.** Paid on a lump sum basis in proportion to accepted progress. The item includes preparation and implementation of the tree protection plan, arborist coordination if required, protective fencing, pruning, root protection, approved tree removals, stump grinding, hauling, disposal, and restoration. Trees or landscaping damaged by Contractor operations that are not shown to be removed must be replaced at no additional cost. The item includes authorized pruning of existing trees and bushes that encroach on the vertical clearance requirements.

Bid Item 25 Traffic Control Plan and Implementation

A. **Measurement.** Measured as one lump sum for preparation, maintenance, implementation, adjustment, and removal of traffic and pedestrian control for the entire Project.
B. **Payment.** Paid on a lump sum basis in proportion to accepted progress. The item includes the traffic control plan, permits and coordination assigned to the Contractor, signs, barricades, channelizing devices, temporary pavement markings, flaggers, temporary accessible pedestrian routes, driveway access, maintenance, inspection, adjustment, and removal. Multiple sites, phases, and remobilizations are included.

Bid Item 26 Stormwater Pollution Prevention Plan and Implementation

A. **Measurement.** Measured as one lump sum for preparation and implementation of the stormwater pollution prevention requirements for the entire Project.
B. **Payment.** Paid on a lump sum basis in proportion to accepted progress. The item includes required plans and notices, erosion and sediment controls, stabilized construction access, inlet protection, inspection and maintenance, recordkeeping, corrective action, removal of controls, and final stabilization. Routine dust, litter, concrete washout, and material-management controls are included.

Bid Item 27 Owner Construction Contingency

A. **Measurement.** No quantity measurement is made. Work is performed only when specifically authorized in writing by the City through a Change Order, Construction Change Directive, Field Order where contractually permitted, or other written authorization.
B. **Payment.** Paid from the stipulated $50,000 Owner Construction Contingency only for authorized changes that are not included in the original Contract scope. Payment will use applicable Contract unit prices when available, otherwise an agreed lump sum or documented cost basis allowed by the Contract. Unused contingency remains with the

City and is not earned by the Contractor. The contingency is excluded from percentage-based payment calculations unless the Contract expressly states otherwise.

Section 18 TECHNICAL AND/OR SPECIAL SPECIFICATIONS; PLANS AND OTHER DRAWINGS; OTHER DOCUMENTS AS NEEDED

Check Here if this Section is NOT Used ☐

[Insert the Following Sections Here As Applicable]

Technical and/or Special Specifications
Plans and Other Drawings
Other Documents as Needed

03 21 00 REINFORCING STEEL

1.00 GENERAL

1.01 SUMMARY

A. Section Includes:

1. Furnish and place reinforcement of the type, size, and details shown on the plans.

1.02 PRICE AND PAYMENT PROCEDURES

A. Reinforcing Steel

1. Measurement
   a. This Item is considered subsidiary to the structure or Items being placed.
2. Payment
   a. The work performed and the materials furnished in accordance with this Item are subsidiary to the structure or Items being placed and no other compensation will be allowed.

1.03 REFERENCES

A. Reference Standards

1. Reference standards cited in this Specification refer to the current reference standard published at the time of the latest revision date logged at the end of this Specification, unless a date is specifically cited.
2. American Concrete Institute (ACI):
   a. 301, Specification for Structural concrete for Buildings
   b. 315, Manual of Standard Practice for Detailing Reinforced Concrete Structures.
   c. 318, Building Code Requirements for Structural Concrete.
   d. 350, Code Requirements for Environmental Engineering Concrete Structures.
   e. SP66, Detailing Manual.
   f. 117, Specification for Tolerances for Concrete Construction and Materials.

3. ASTM International (ASTM):

   a. A1064/A1064M Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
   b. A184/A184M, Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement.
   c. A615A615M Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
   d. A706/A706M Standard Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement
   e. A775/A775M Standard Specification for Epoxy-Coated Steel Reinforcing Bars.
   f. A955/A955M Plain and Deformed Stainless –Steel Bars for Concrete Reinforcement.
   g. A767/A767M Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.

4. American Welding Society (AWS).

   a. D1.1, Structural Welding Code - Steel.
   b. D1.4, Structural Welding Code - Reinforcing Steel.

5. Concrete Reinforcing Steel Institute (CRSI)

   a. Manual of Standard Practice.
   b. RB4.1, Supports for Reinforcement Used in Concrete.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Work Included

1. Furnish labor and reinforcing materials required to cut, bend, tie, splice, place and support the reinforcement in the material grades, sizes, quantities and locations specified.

2. The Work includes fabrication and placement of reinforcement including bars, ties and supports, and welded wire fabric for concrete, encasements and fireproofing.

1.05 SUBMITTALS

A. All submittals shall be approved by the Engineer prior to delivery and/or fabrication.

1.06 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS

A. Shop Drawings: Submit for approval the following:
   1. Manufacturer's specifications and installation instructions for all materials and reinforcement accessories.
   2. Drawings for fabrication, bending, and placement of concrete reinforcement. Comply with ACI 315, Parts A and B. For walls, show elevations of each wall to depict reinforcing. For slabs, show top and bottom reinforcing on separate plan views. Show bar schedules, stirrup spacing, diagrams of bent bars, arrangements and assemblies, as required for the fabrication and placement of concrete reinforcement unless otherwise noted. Splices shall be kept to a minimum. Splices in regions of maximum tension stresses shall be avoided whenever possible.
   3. Drawings detailing the location of all construction, contraction and expansion joints shall be submitted and approved before Shop Drawings for reinforcing steel are submitted. Reinforcing submittals not showing jointing will be rejected.

B. Certificates:
   1. Submit one copy of steel producer's certificates of mill analysis, tensile and bend tests for reinforcing steel.

C. Adhesive for Drilled Dowels:
   1. Product Data:
      a. Manufacturer’s catalog information.
      b. Manufacturer’s instructions for preparation, placement, drilling of holes, installation, and handling of cartridges, nozzles and equipment.
      c. Contact for manufacturer including name, telephone number, and address.
      d. Manufacturer’s Certificate of Proper Installation
      e. Manufacturer’s written letter of certification identifying installer’s qualifications to install the product.
      f. Doweling system ICC-ES Reports.
      g. Detailed step-by-step instructions for the Special Inspection procedure in accordance with ICC-ES Reports and IBC.

1.07 QUALITY ASSURANCE

A. TOLERANCES: Reinforcement shall be placed where specified, with the tolerances in ACI 117.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Steel Reinforcement
   1. Store steel reinforcement above the surface of the ground upon platform skids or other supports. Protect from mechanical and chemical injury and surface deterioration caused by exposure to conditions producing rust. When placed in the work, steel reinforcement shall be free from dirt, scale, dust, rust, paint, oil and other foreign material. Tagging shall be associated with approved reinforcing steel submittal drawings.

2.00 PRODUCTS

2.01 PRODUCT TYPES AND MATERIALS

A. Reinforcing Bars: ASTM A615, or A706 and as follows:
   1. Provide Grade 60 for all bars, unless indicated otherwise.

B. Mechanical Couplers

1. Where permitted in writing by the Engineer, mechanical couplers may be used. Unless otherwise specified, splicing devices shall be a full mechanical connection which shall develop in tension or compression, as required, at least 125 percent of specified yield strength (fy) of the bar. Where a Type 2 splice is specified, the splicing device shall develop at least the greater of specified tensile capacity or 125% of specified yield capacity of the bars being spliced. Submit manufacturer ICC-ES, IAMPO-UES, or other testing agency report of compliance.
2. Mechanical threaded couplers shall be one of the following, or approved equal:
   a. Lenton Taper Threaded Rebar Couplers by Erico, Inc.
   b. Lenton Form Saver Couplers by Erico, Inc.
   c. Cadweld Rebar Coupler by Erico, Inc.

C. Steel Wire: ASTM A 82.

D. Welded Smooth Wire Fabric: ASTM A1064/A1064M.

1. Furnish in flat sheets, not rolls.

E. Supports for Reinforcement: Bolsters, chairs, spacers and other devices for spacing, supporting and fastening reinforcement in place.

1. Use wire bar type supports complying with CRSI RB4.1, except as otherwise specified below. Do not use unacceptable materials such as wood or brick.

F. Drilled Dowels

1. Adhesive material for drilled dowels shall be a two-part epoxy adhesive. The resin shall be a high modulus, moisture insensitive type. The adhesive shall be packaged in a cartridge type dispensing system with a mixing nozzle. The adhesive shall be formulated to maintain its bond and integrity under continuous submergence by water. The adhesive anchoring systems shall have an ultimate capacity in excess of 125 percent of the yield strength of the reinforcing steel at an embedment of 12 bar diameters, and shall be confirmed by a pull test at the project site.
2. Adhesive systems shall be:
   a. HIT RE 500 SD, manufactured by Hilti Corporation.
   b. No substitutes will be considered.

2.02 FABRICATION

A. General: Fabricate reinforcing bars to conform to required shapes and dimensions, with fabrication tolerances complying with CRSI, “Manual of Standard Practice”. In case of fabricating errors, do not re-bend or straighten reinforcement.

B. Unacceptable Materials: Reinforcement with any of the following defects will not be permitted in the Work:

1. Bar lengths, bends, and other dimensions exceeding specified fabrication tolerances.
2. Bends or kinks not shown on approved Shop Drawings.
3. Bars with reduced cross-section due to excessive rusting or other cause, as determined by CRSI CTN M-2-11, to verify compliance with the relevant ASTM specification.
4. Bars that have been field modified or cut without written approval by the Inspector.

3.00 EXECUTION

3.01 EXAMINATION

A. Inspector shall examine the substrate and the conditions under which concrete reinforcement is to be placed, and notify Contractor, in writing, of unsatisfactory conditions. Do not proceed with the Work until unsatisfactory conditions have been corrected in a manner acceptable to Inspector.

B. Bars with excessive rust, debris, or other defect shall be removed and replaced where directed by the Inspector. Evaluation of rust can be evaluated using CRSI CTN M-2-11, to verify compliance with the relevant ASTM material specification.

3.02 PREPARATION

A. Before any concrete is placed, all mortar blocks to be used for holding steel in position adjacent to formed surfaces shall be cast in individual molds, after which time the blocks shall be immersed in water for the remainder of at least a 4-day curing period. The blocks shall be cast with the sides beveled and in such a manner that the size of the block increases away from the surface to be placed against the forms. Blocks shall be in the form of a frustum of a cone or pyramid. Suitable tie wires shall be provided in each block for anchoring the block to the reinforcing steel, and to avoid displacement when placing the concrete. The size of the surface to be placed adjacent to the forms shall not exceed 2-1/2" square or the equivalent thereof when circular or rectangular areas are provided. Blocks shall be accurately cast to the thickness required, and the surface to be placed adjacent to the forms shall be a true plane free of surface imperfections.

3.03 INSTALLATION

A. Comply with the applicable recommendations of specified codes and standards, and CRSI, “Manual of Standard Practice”, for details and methods of reinforcement placement and supports.

B. Clean reinforcement to remove loose rust and mill scale, earth, ice, and other foreign materials which reduce or destroy bond with concrete. Repair any visible holidays in epoxy coated reinforcing and coat ends of cut reinforcement.

C. Placement

1. Place steel reinforcement, as indicated on the plans with the specified tolerances. Hold securely in place during the concrete placement. The minimum clear distance between bars shall be per according to the concrete documents. Always pass vertical stirrups around the main tension members and securely attach thereto. Wire reinforcing together at a intersections to produce a sound mat or cage of reinforcement that will maintain the reinforcement in correct positions when the concrete is placed.
2. Hold the reinforcing steel in concrete slabs firmly in place with wire supports or "chairs". Sizing and spacing of the chairs shall be in accordance with CRSI RB4.1.
3. Space the reinforcing steel in concrete walls the proper distance from the face of the forms, as indicated on the drawings:
    a. For finished wall surfaces exposed to view, use chairs.
    b. For finished wall surfaces not exposed to view, use chairs or precast mortar blocks.
4. Where reinforcing conflicts with location of anchor bolts, inserts, etc., submit written notice to the Engineer so that revisions can be made before concrete is placed. No cutting of reinforcing shall be permitted without the written approval of the Engineer.
5. Place welded wire fabric flat in longest practical lengths. Lap sheets of wire reinforcement according to the Contract Documents. Do not locate end laps over beams of continuous structures or midway between supporting beams. Offset end laps of adjacent widths to prevent continuous lap. Fasten ends and sides of welded wire fabric at 48" o.c. with tie wire.
6. Reinforcement shall extend through construction joints.
7. Welded wire reinforcement shall be placed and supported to comply with the tolerances specified in Contract Documents .

D. Position, support, and secure reinforcement against displacement during formwork construction or concrete placement operations. Locate and support reinforcing by metal chairs, runners, bolsters, spacers and hangers, as required.

1. Place reinforcement to obtain the minimum concrete coverages as shown and as specified in ACI 350. Arrange, space, and securely tie bars and bar supports together with 16 gauge wire to hold reinforcement accurately in position during concrete placement operations. Set wire ties so that twisted ends are directed away from exposed concrete surfaces.

2. Prior to placement of concrete, Contractor shall demonstrate to Inspector that the specified cover of reinforcement has been attained by survey.
3. Reinforcing steel shall not be secured to forms with wire, nails or other ferrous metal. Metal supports subject to corrosion shall not touch formed or exposed concrete surfaces.
4. Adjusting the location of reinforcing during concrete placement is not permitted, except when wire mesh adjustments occur during concrete placement. Reinforcing must be firmly secured at specified locations prior to concrete placement.

E. Install welded wire fabric in as long lengths as practical. Lap adjoining pieces at least one full mesh and lace splices with 16-gage wire. Do not make end laps midway between supporting beams, or directly over beams of continuous structures. Offset end laps in adjacent widths to prevent continuous laps.

F. Provide sufficient numbers of supports of strength required to carry reinforcement. Do not place reinforcing bars more than 2-inches beyond the last leg of any continuous bar support. Do not use supports as bases for runways for concrete conveying equipment and similar construction loads.

G. Lap Splices:

1. Provide a lap table to show standard reinforcement splices including lapping ends, placing bars in contact, and tying tightly with wire. Where spliced bars are not in direct contact, spacing shall not exceed that specified in the Drawings. Comply with requirements shown on the Drawings for minimum lap of spliced bars.

H. Mechanical Couplers:

1. Mechanical butt splices shall be in accordance with the recommendation of the manufacturer of the mechanical splicing device. Butt splices shall develop 125 percent of the specified minimum yield tensile strength of the spliced bars or of the smaller bar in transition splices. Bars shall be flame dried before butt splicing. Adequate jigs and clamps or other devices shall be provided to support, align, and hold the longitudinal centerline of the bars to be butt spliced in a straight line. Couplers shall be used only when permitted in writing by the Engineer.

I. Welded Splices

1. Only Exothermic-welded splicing of reinforcing is permitted. Welding of crossing bars (tack welding) for assembly of reinforcement is prohibited.

J. Drilled Dowels

1. Drilled dowels shall be reinforcing dowels set in a resin adhesive in a hole drilled into hardened concrete.
2. Holes shall be drilled to the adhesive anchor system manufacturer’s recommended diameter and depth to develop the required pullout resistance but shall not be greater in diameter than 1/4-inch more than the nominal bar diameter nor less than 12 times the nominal bar diameter in depth unless specified otherwise in the Drawings.
3. The hole shall be drilled by methods which do not interfere with the proper bonding of the resin. Only masonry type drill bits shall be used.
4. Existing reinforcing steel in the vicinity of proposed holes shall be located prior to drilling. The location of holes to be drilled shall be adjusted to avoid drilling through existing reinforcing bars.
5. The hole shall be brushed (non-metallic bristle brush only) and blown clean with clean, dry compressed air to remove all dust and loose particles.
6. Resin shall be injected into the hole through the injection system-mixing nozzle (and any necessary extension tubes) placed to the bottom of the hole. The discharge end shall be withdrawn as resin is placed but kept immersed to prevent formation of air pockets. The hole shall be filled to a depth that ensures that excess material is expelled from the hole during dowel placement.

7. Dowels shall be twisted during insertion into the partially filled hole so as to guarantee full wetting of the bar surface with resin. The bar shall be inserted slowly enough to avoid developing air pockets.

3.04 FIELD QUALITY CONTROL

A. Concrete shall not be placed until the reinforcing steel is inspected and written permission for placing concrete is granted by the Inspector. All concrete placed in violation of this provision will be rejected. The Contractor shall give 24-hour written notice to the Owner's representative prior to reinforcing steel inspection.

B. Formwork for walls and other vertical members will not be closed up until the reinforcing steel is inspected and written permission for placing concrete is granted by the Inspector. All concrete placed in violation of this provision will be rejected.

C. Testing of Drilled Dowels: The Owner shall employ a testing agency to perform field quality control testing of the drilled dowel installation. After completion of the manufacturer's recommended curing period and prior to placement of connecting reinforcing, ten percent of drilled dowels installed shall be proof tested for pullout. The drilled dowels shall be tensioned to 60 percent of the specified yield strength. Where dowels are located less than six bar diameters from the edge of concrete, the Engineer will determine the tensile load required for the test. If any dowels fail, all installed dowels shall be tested. Dowels that fail shall be reinstalled and retested at Contractor's expense.

END OF SECTION

03 30 00 CAST-IN-PLACE CONCRETE

1.00 GENERAL

1.01 SUMMARY

A. Section Includes

1. Furnish labor, materials, equipment, and incidentals necessary to place, transport, consolidate, finish, cure, and mix concrete, consisting of Portland cement, fine aggregate, admixtures, and water in the proper portions as specified.

1.02 PRICE AND PAYMENT PROCEDURES [NOT USED]

1.03 REFERENCES

A. Reference Standards

1. Reference standards cited in this specification refer to the current reference standard published at the time of the latest revision date logged at the end of this specification, unless a date is specifically cited.
2. American Society for Testing and Materials (ASTM)
3. American Concrete Institute (ACI)

1.04 ADMINISTRATIVE REQUIREMENTS [NOT USED]

1.05 SUBMITTALS

A. All submittals shall be approved by the Engineer or the Owner prior to delivery.

1.06 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS

A. Product Data

1. Trial mix design

B. Show Drawings

1. Submit a schedule to the Owner’s representative which shows the sequence of work.

C. Test and Evaluation Reports

1. Compressive test results
2. Portland Cement certificate of compliance
3. Aggregate certificate of compliance

1.07 CLOSEOUT SUBMITTALS [NOT USED]

1.08 MAINTANENCE MATERIAL SUBMITTALS [NOT USED]

1.09 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who has completed concrete Work similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

B. Manufacturer Qualifications

1. A firm experienced in manufacturing ready-mixed concrete products complying with ASTM C94 requirements for production facilities and equipment.
2. Manufacturer must be certified according to the National Ready Mixed Concrete Association’s Certification of Ready Mixed Concrete Production Facilities.

C. Testing

1. Factory Testing
   a. Trial Mix
      1) The Contractor shall be responsible for the design of the concrete. A trial mix shall be designed by an independent testing laboratory, retained by the Contractor and approved by the Owner. The testing laboratory shall submit verification that the materials and proportions of the trial mix design meet the requirements of the specifications.
      2) In lieu of a trial mix design, Contractor may submit a mix design used successfully in previous similar work, for similar materials for approval.
      3) The Contractor shall not make changes in materials, gradation, source, brand, or proportions after having the design approved.
      4) Testing shall be done using the same cement, water, aggregates, and fly ash that will be used for the project.
   b. Portland Cement
      1) Secure from the cement manufacturer Certificates of Compliance delivered directly to the concrete producer for further delivery directly to the testing laboratory.
      2) Require the Certificates of Compliance to positively identify the cement as to production lot, bin or silo number, dating and routing of shipment, and compliance with the specified standards.
      3) If so required by the Owner, promptly provide such other specific physical and chemical data as required.
   c. Aggregate
      1) Provide one test unless character of material changes, material is substituted, or additional test is requested by the Inspector.
      2) Sample from conveyor belts or batching gates at the ready-mix plant:
         a) Sieve analysis to determine compliance with specified standards and grading;
         b) Specific gravity test for compliance with specified standards.
2. Owner Testing
   a. It is the responsibility of the Contractor to achieve and maintain the quality of concrete required. However, the Owner may, at his option, perform laboratory testing to verify the quality of the concrete. The Owner shall have the right to require additional testing of concrete which has failed to the minimum requirements of this section. Any additional tests will be at the cost of the Contractor.

D. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, each aggregate from one source, and each admixture from the same manufacturer.

1.10 STANDARDS

A. Mixing, sampling, placing, curing and testing of concrete, and the materials used shall be in compliance with the latest revisions of the following standards, unless otherwise noted in the Contract Documents. The Contractor shall maintain one copy of each of the applicable standards at the construction field office.

1. American Society for Testing and Materials (ASTM) Standards
2. American Concrete Institute (ACI) Standards

1.11 FIELD CONDITIONS [NOT USED]

1.12 WARRANTY [NOT USED]

2.00 PRODUCTS

2.01 CONCRETE

A. Performance / Design Criteria

1. Concrete shall be proportioned to give the necessary workability and strength and shall conform to the following requirements:

Class	Min. 28 Day Compressive Strength	Min. Cement Bags Per Cu.Yd.	Max Size of Coarse Aggregate	Max W/C Ratio	Slump Inches	Use
A	3,000	5.0	3/4”	0.60	4	Curb & Gutter, Sidewalks
C	4,000	5.5	1 ½”	0.45	4	Pavement, Valley Gutters and Headers

2. In no case shall the amount of coarse material be such as to produce harshness in placing and honeycombing in the structure when forms are removed.

B. Materials

1. Cement
   a. Portland Cement conforming to the specifications and test results for Type I Portland Cement as designated in ASTM C 150.
      1) A maximum of 20% of the cementitious materials used in mix designs may be replaced with Class C or F fly ash.
         a) Fly ash shall not be used with Type IV cement.
         b) Carbon content in fly ash shall not exceed 3% by volume
2. Fine Aggregate
   a. Fine aggregates consisting of natural, washed and screened sand having clean, hard, strong, durable, uncoated grains complying with the requirements of ASTM C 33.
   b. The sand shall generally be of such size that all will pass a 3/8” sieve, at least 95% passing a 1/4” screen and at least 80% passing a No. 8 sieve.
   c. Aggregate shall not contain strong alkali, or organic material which gives a color darker than the standard color when tested in accordance with ASTM C 40.
3. Coarse Aggregate
   a. Evenly graded and consisting of sound, washed and screened gravel, free of clay balls, injurious amounts of soft, friable, thin, elongated, or laminated pieces, alkali, organic, or other deleterious materials.
   b. Coarse aggregates shall comply with ASTM C 33, size 57.
4. Reinforcing Steel
   a. New billet steel, deformed bars, conforming to ASTM A 615 Grade 60.
5. Admixtures
   a. Concrete of 3,000 psi or stronger shall contain air-entraining admixtures, except for drilled shafts, and when conditions require, water reducing and set controlling admixtures may be used. Only admixtures specified may be used:
      1) Air Entraining Admixture
         a) Comply with ASTM C 260. The total average air content shall be in accordance with recommendations ACI 211.1: 4.5% + 1.0% for 1-1/2” maximum size aggregate.

2) Water Reducing Admixture
   a) Comply with ASTM C 494, Types A and D only. Accurately measure and add to the mix in accordance with the Manufacturer's recommendations.
3) Set Retarding Admixture
   a) Retarding agents may be used if approved by the Engineer. Comply with ASTM C 494, Types B and D only. Accurately measure and add to the mix in accordance with the Manufacturer's recommendations.

6. Water
   a. Water for concrete shall be clean and free from oil, acid, alkali, organic matter or other harmful impurities.
   b. Water which is suitable for drinking or for ordinary household use will be acceptable for concrete.
   c. Where available, water shall be obtained from mains of a waterworks system.
7. Expansion Joints
   a. Bituminous type performed expansion joint filler complying with ASTM D 994, in thickness specified.
   b. Expansion joint sealant shall be a two component non-sag polysulfide base elastometric sealing compound conforming to Fed. Spec. TT-S-00227E, Type II, Class B.
8. Concrete shall be capable of developing two-thirds of the required 28-day compressive strength in 7 days.

C. Mixes
1. In the determination of the amount of water required for mix, consideration shall be given to the moisture content of the aggregate. The net amount of water in the mix will be the amount added at the mixer, plus the free water in the aggregate; and minus the absorption of the aggregate, based on a 30 minute absorption period. No water allowance shall be made for evaporation after batching.
2. The methods of measurement of materials shall be such that the proportions of water to cement can be closely controlled during the progress of the work and easily checked at any time by the Owner. Contractor shall obtain aggregate from a source which will insure a uniform quality and grading during any single day. Sources of supply shall be approved by the Owner.
3. All materials shall be separately and accurately measured. Measurement may be made by weight or by volume. All equipment for measurement of materials shall be subject to approval by Owner.
4. Proportions of the mix shall be such that the concrete can be installed into the corners and angles of forms and around reinforcing without excessive spading or vibrating.

D. Required Average Compressive Strength:
1. All concrete is required to have an average compressive strength greater than the specified strength. The required average compressive strength shall be established according to the requirements of ACI 301, 4.2.3.3.
2. Standard Deviation: If the production facility has records of field tests performed within the past 12 months and spanning a period of not less than 60 calendar days for a class of concrete within 1000 psi of that specified for the work, calculate a standard deviation and establish the required average strength fcr' in accordance with ACI 301, 4.2.3.2 and 4.2.3.3.a. If field test records are not available, select the required average strength from ACI 301, Table 4.2.3.3.b.

E. Documentation of Required Average Compressive Strength:
1. Documentation indicating the proposed concrete proportions will produce an average compressive strength equal to or greater than the required average compressive strength, shall consist of field strength records or trial mixture.

2. Field Strength Records: Document field strength records according to ACI 301, 4.2.3.4.a and including the following:
   a. Field test data shall not be older than 1 year.
   b. If field test data are available and represent a single group of at least 30 consecutive strength tests for one mixture, using the same materials, under the same conditions, and encompassing a period of not less than 60 days, verify that the average of the field test results equals or exceeds fcr' . Submit for acceptance the mixture proportions along with the field test data.
   c. If the field test data represent two groups of compressive strength tests for two mixtures, plot the average strength of each group versus the water-cementitious materials ratio of the corresponding mixture proportions and interpolate between them to establish the required mixture proportions for fcr'.
3. Trial Mixtures:
   a. Establish trial mixture proportions according to ACI 301, 4.2.3.4.b and including the following.
      1) Make at least three trial mixtures complying with performance and design requirements. Each trial mixture shall have a different cementitious material content. Select water-cementitious materials ratios that will produce a range of compressive strengths encompassing the required average compressive strength fcr'.
      2) Submit a plot of a curve showing the relationship between water-cementitious materials ratio and compressive strength.
      3) Establish mixture proportions so that the maximum water-cementitious materials ratio is not exceeded when the slump is at the maximum specified.
   b. Laboratory samples shall be taken in accordance with the trial mix designs for laboratory testing purposes.
   c. The fresh concrete shall be tested for Slump (ASTM C143) and Air Content (ASTM C173 and ASTM C231). Strength test specimens shall be made, cured and tested for 7-day and 28-day strength in accordance with ASTM C192, ASTM C39, and ASTM C293.
   d. Suitable facilities shall be provided for readily obtaining representative samples of aggregate from each of the weigh batchers for test purposes and for obtaining representative samples of concrete for uniformity tests. The necessary platforms, tools, and equipment for obtaining samples shall be furnished. Aggregates shall be tested in accordance with ASTM C289.
   e. The cement contents specified are minimum values. If additional quantities are required to obtain the specified strengths, supply the cement at no additional cost to the Owner.
   f. A trial mix shall be designed by an independent testing laboratory, retained and paid by the Contractor and approved by the Owner. The testing laboratory shall submit verification that the materials and proportions of the trial concrete mix design meet the specifications.
   g. From these trial mix tests, the ratios between 7-day and 28-day strengths shall be established. The 7-day strength which corresponds to the required 28-day strength shall be determined.
   h. The final results of the trial mix design shall be submitted to the Engineer at least 10 days prior to the scheduled beginning of concrete placement and shall be approved by the Engineer prior to the placement of any concrete.
4. Revisions to Concrete Mixtures
   a. When less than 15 compressive strength tests results for a given class of concrete are available from the current project:
      1) If any of the following criteria are met, take immediate steps to increase average compressive strength of the concrete.
         a) A 7-day compressive strength test result multiplied by 1.5 falls below the required 28-day compressive strength.
         b) A 28-day compressive strength tests result is deemed not satisfactory

b. When at least 15 compressive strength test results for a given class of concrete become available from the current project:
    1) Calculate the actual average compressive strength, standard deviation and required average compressive strength using the previous 15 consecutive strength tests. Submit results in graphical form with each 28-day test result for that class of concrete.
    2) If any of the following criteria are met, take immediate steps to increase average compressive strength of the concrete
        a) A 7-day compressive strength test result multiplied by the average job-to-date ratio of 7-day to 28-day compressive strength falls below the required 28-day compressive strength.
        b) A 28-day compressive strength tests result is deemed not satisfactory.
        c) The average compressive strength falls below the required average compressive strength.
        d) When revisions to the mix design are required, notify the Engineer in writing of the corrective actions taken.

2.02 CONCRETE MIXING

A. Mixers may be stationary, truck, or paving mixers of approved design. They shall be capable of combining the materials into a uniform mixture and of discharging without mixture segregation. Stationary and paving mixers shall be provided with an acceptable device to lock the discharge mechanism until the required mixing time has elapsed. The mixers or mixing plant shall include a device for automatically counting the total number of batches of concrete mixed. The mixers shall be operated at the drum or mixing blade speed designated by the manufacturer on the name plate.

B. The mixing time for stationary mixers shall be based upon the mixer's ability to produce uniform concrete throughout the batch and from batch to batch. For guidance purposes, the manufacturer's recommendations, or 1 minute for 1 cubic yard plus 1/4 minute for each additional cubic yard may be used. Final mixing time shall be based on mixer performance. Mixers shall not be charged in excess of the capacity specified by the manufacturer.

C. When a stationary mixer is used for partial mixing of the concrete (shrink mixed), the stationary mixing time may be reduced to the minimum necessary to intermingle the ingredients (about 30 seconds).

D. When a truck mixer is used, either for complete mixing (transit-mixed) or to finish the partial mixing in a stationary mixer and in the absence of uniformity test data, each batch of concrete shall be mixed not less than 70 nor more than 100 revolutions of the drum, at the rate of rotation designated by the manufacturer of the equipment as mixing speed. If the batch is at least 1/2 cubic yard less than the rated capacity, in the absence of uniformity test data, the number of revolutions at mixing speed may be reduced to no less than 50. Additional mixing shall be performed at the speed designated by the manufacturer of the equipment as agitating speed. When necessary for proper control of the concrete, mixing of transit-mixed concrete shall not be permitted until the truck mixer is at the site of the concrete placement. Truck mixers shall be equipped with accurate revolution counters.

E. Paving mixers may be either single compartment drum or multiple compartment drum type. A sled or box of suitable size shall be attached to the mixer under the bucket to catch any concrete spillage that may occur when the mixer is discharging concrete into the bucket. Multiple compartment drum paving mixers shall be properly synchronized. The mixing time shall be determined by time required to transfer the concrete between compartments of the drum.

F. Vehicles used in transporting materials from the batching plant to the paving mixers shall have bodies or compartments of adequate capacity to carry the materials and to deliver

each batch, separated and intact, to the mixer. Cement shall be transported from the batching plant to the mixers in separate compartments which are equipped with windproof and rain proof covers.

2.03 FORM TIES

A. Form Ties

1. Metal form ties shall be used to hold forms in place and to provide easy metal removal. The use of wire for ties shall not be permitted.
2. No metal or other material shall be left within 1 1/2”of the surface, when removing form tie assemblies which are inside the forms. The assembly shall provide cone-shaped depressions in the concrete surface at least 1” in diameter and 1 1/2” deep to allow filling and patching. Such devices when removed shall leave a smooth depression in the concrete surface without injury to the surface.
3. Burning off rods, bolts, or ties shall not be permitted.
4. Metal ties shall be held in place by devices attached to wales. Each device shall be capable of developing the strength of the tie.
5. Metal and wooden spreaders which are separated from the forms shall be wired to the top of the form and shall be entirely removed as the concrete is placed.

2.04 WATERSTOPS

A. Flexible PVC Waterstops: CE CRD-C 572, for embedding in concrete to prevent passage of fluids through joints. Factory fabricate corners, intersections, and directional changes. Unless indicated otherwise, provide the following configurations.

1. Construction Joints:
   a. Profile: Ribbed without center bulb.
   b. Width: 6 inches.
   c. Minimum thickness: 3/8 inch.
2. Expansion Joint:
   a. Profile: Ribbed with center bulb.
   b. Width: 9 inches.
   c. Minimum thickness: 3/8 inch.
3. Manufacturers:
   a. Greenstreak.
   b. Meadows: W. R. Meadows, Inc.
   c. Murphy: Paul Murphy Plastics Co.
   d. Progress Unlimited Inc.
   e. Sternson Group.
   f. Tamms Industries Co.; Div. of LaPorte Construction Chemicals North America, Inc.
   g. Vinylex Corporation.
   h. Westec Barrier Technologies; Div. of Western Textile Products, Inc.

B. Self-Expanding Strip Waterstops (Hydrophilic): Self-expanding strip waterstops shall be used only where specifically indicated. Manufactured rectangular or trapezoidal strip, sodium bentonite or other hydrophilic material for adhesive bonding to concrete.

1. Products: Adeka Ultra Seal: Mitsubishi International Corporations

2.05 CURING MATERIALS

A. Sheet Curing Material: Conforming to ASTM C171.

1. Waterproof paper.
2. Polyethylene film.
3. White burlap -polyethylene film.

B. Membrane Curing Compounds: Membrane curing compound conforming to ASTM C309; having a color to indicate coverage when applied; non-staining; applied according to the manufacturer's recommendations. No curing compound shall be used on walls which are to receive a plaster mix finish. When tested according to ASTM C156, the curing compound shall provide a film which has retained, within the specimen, the following percentages of moisture present when the curing compound was applied:
   1. At least 97 percent at the end of 24 hours.
   2. At least 95 percent at the end of 3 days.
   3. At least 91 percent at the end of 7 days.

C. Concrete Curing and Sealing Compound:
   1. Where a sealer is necessary, use a concrete curing and sealing compound. Application of this product shall be in accordance with the manufacturer's recommendations.
   2. Interior concrete surfaces: Sonneborn Kure-N-Seal W, by BASF The Chemical Company.
   3. Exterior concrete surfaces: Sonneborn Kure 1315, by BASF The Chemical Company.

D. Finishing Aid: Spraying material designed to form a monomolecular film on fresh concrete that reduces the rate of evaporation of surface moisture prior to finishing; conforming to Confilm, as manufactured by Master Builders, Inc. This material is not a curing compound. Concrete must be cured as specified.

2.06 RELATED MATERIALS

A. Joint Materials for Water-Retaining Structures:
   1. Pre-molded, resilient, non-bituminous expansion joint filler conforming to ASTM D1752, Type "II", in the thickness specified.
   2. Joint sealer conforming to ASTM D6690.
   3. Expansion joint sealant for non-potable water shall be a two-component, non-sag, polysulfide-base, elastomeric sealing compound. The material shall conform to Federal Specification TT S 00227E, Type "II", Class B; installed according to the manufacturer's recommendations. Backing material for sealant shall be a rod of a diameter and composition recommended by the sealant manufacturer.
   4. Expansion joint sealant for potable water shall be a two-component, non-sag, polysulfide sealant containing no lead or mercury; conforming to Fed. Spec. TT S 00227E, Type "II", Class A; applied according to the manufacturer's specifications. Backing material for sealant shall be a rod of a diameter and composition recommended by the sealant manufacturer.
   5. Where surface is to receive a swept in grout topping, a 3-inch wide, 1-mil polyethylene strip shall be placed above the joint sealant and held in place with 1-inch wide polyethylene tape spaced at 12-inch centers (maximum).

B. Joint Materials for Non-Water Retaining Structures: Bituminous-type, preformed, expansion joint filler, conforming to ASTM D994.

C. Bonding Agents: Install according to the manufacturer's recommendations and written instructions.
   1. Bonding agent shall be Sika Armatec 110 EpoCem by Sika Corporation.

D. Non-Shrink Grout:
   1. General: Non-shrink grout for grouting of pump, motor, and equipment baseplates or bedplates, column baseplates, other miscellaneous baseplates, piping block outs and other uses of grout. Grout shall meet the following requirements, as verified by independent laboratory tests:

a. No shrinkage from the time of placement, or expansion after set, under ASTM C827 and CRD C621 83 (Corps of Engineers). When non shrink grouts are tested under CRD C621 83, the grout shall be tested in a fluid state. A fluid state shall be defined as flowing through a flow cone at a rate of 20 seconds, plus or minus 5 seconds.
b. An initial set time of not less than 45 minutes under ASTM C191.

2. Non-Shrink Non Metallic Grout: Pre mixed, non-staining, non-shrink grout; minimum 28day compressive strength of 5000 psi.
   a. Do not use for vibrating equipment.
   b. Products:
      1) Masterflow 713 Plus by BASF The Chemical Company.
      2) Five Star Grout by Five Star Products, Inc.
      3) SikaGrout 212 by Sika Corporation.
3. Non-Shrink Epoxy Structural Grouts: Furnished in two components from the factory and mixed on the job site; conforming to ASTM C579, ASTM C580, and ASTM C827; chemical resistant, water resistant and a minimum 7-day compressive strength of 12,000 psi.
   a. Use for vibrating equipment.
   b. Products:
      1) Sikadur 42, Grout-Pak by Sika Corporation.
      2) Five Star HP Epoxy Grout by Five Star Products, Inc.
      3) Masterflow 648 CP by BASF The Chemical Company.

E. Normal Shrinkage Grout: 1 part Portland cement, Type I, to 3 parts of clean, first quality sand; proportioning on a volumetric basis; used for non-structural applications for grouting areas as shown on the plans which do not require non-shrink grout.

F. Zinc Rich Primer: Aluminum surfaces which contact or are embedded in concrete shall be coated with zinc rich primer. Primer shall be Tneme-Zinc.

2.07 REPAIR MATERIALS

A. Concrete shall be repaired with hand-applied repair mortar.

3.00 EXECUTION

3.01 PREPARATION

A. Notify the Owner's representative upon completion of various portions of the work required for placing concrete, so that inspection may be made as early as possible. Keep the Owner's representative informed of the anticipated concrete placing schedules.

B. All items, including lines and grades, forms, waterstops, reinforcing, inserts, piping, electrical, plumbing and the Contractor's concreting materials and equipment shall be in compliance with the plans and specifications before proceeding.

C. Do not place any concrete until formwork and the placing reinforcement in that unit is complete. Place no concrete before the completion of all adjacent operations which might prove detrimental to the concrete.

D. Brilliantly light the work site so that all operations are plainly visible when concrete mixing, placing, and finishing, continues after daylight. Whenever possible, concrete finishing shall be completed in daylight hours.

E. When placing concrete, the forms shall be clean and entirely free from all chips, dirt, sawdust and other extraneous matter. Forms for slab, beam and girder construction shall not have tie wire cuttings, nails, or any other matter which would mar the appearance of the finished construction. Clean forms and keep them free of any foreign matter during concrete placing.

F. The concrete shall be mixed in quantities required for immediate use. Any concrete which is not in place within the time limits specified shall not be used. Concrete shall not be re-tempered.

G. Concrete shall not be placed if impending weather conditions would impair the quality of the finished work.

H. Unless otherwise provided, the following requirements shall govern the time sequence on which construction operations shall be carried.

1. Forms for walls or columns shall not be erected on concrete footings until the concrete in the footing has cured for at least 2 curing days. Concrete may be placed in a wall or column as soon as the forms and reinforcing steel placements are approved.
2. Steel beams or forms and falsework for superstructures shall not be erected on concrete substructures until the substructure concrete has cured for at least 4 curing days. Falsework required for superstructures shall not be erected until the substructure has cured for 4 curing days, and shall not be removed until the superstructure has cured.

I. Aluminum and Steel Items

1. Where aluminum anchors, aluminum shapes, or aluminum electrical conduits are embedded in concrete, contact surfaces shall be painted with zinc chromate primer. The paint shall be allowed to thoroughly dry before the aluminum is placed in contact with the concrete.
2. Aluminum surfaces to be placed in contact with concrete, wood, or masonry construction, except where the aluminum is to be embedded in concrete, shall be given a heavy coat of an alkali-resistant paint before installation. The paint shall be applied as it is received from the manufacturer without the addition of any thinner.
3. Steel or other ferrous metal to be mounted on or placed in contact with dry/cured concrete such as piping, access manholes, electrical switchgear, etc. shall have contact surfaces coated with bituminous paint in accordance with previous paragraph.

3.02 JOINTS

A. Expansion Joints and Devices:

1. Workmanship: Exercise careful workmanship in joint construction to separate the concrete sections by an open joint or by the joint materials, and make the joints true to the outline indicated.
2. Expansion Joints: Construct expansion joints and devices to provide expansion and contraction. Construct joints which are to be left open or filled with poured joint material with forms which are adaptable for loosening or early removal. In order to avoid jamming by the expansion action of the concrete and the consequent likelihood of injuring adjacent concrete, remove or loosen these forms as soon as possible after the concrete has initially set. Make provisions for loosening the forms to permit free concrete expansion without requiring full removal.

B. Construction Joints:

1. Construction joints are formed by placing plastic concrete in direct contact with concrete which has attained its initial set. When concrete is specified as monolithic, the term shall be interpreted as the manner and sequence of concrete placement so that construction joints do not occur.
   a. Unless noted otherwise, the maximum horizontal spacing of construction joints shall be 40 feet.
   b. For slabs on grade, the maximum spacing between two construction joints or between a construction joint and a control joint shall be 15 feet, unless noted otherwise.
   c. Unless noted otherwise or approved by the Engineer, the maximum vertical spacing of construction joints shall be 15 feet. If not detailed on the drawings, construction joint details and locations shall be submitted to the Engineer for approval.
2. Additional horizontal and vertical construction joints, when submitted and approved by the Engineer, may have an impact on reinforcing details. Revise reinforcing details to reflect additional joints.

3. Unless otherwise provided, construction joints shall be square and normal to the forms. Provide bulkheads in the forms for all joints except horizontal joints.
4. At the proper time, clean horizontal construction joints for receiving the succeeding lift using air water cutting. The surface shall be exposed sound, clean aggregate. The air pressure supply to the jet shall be approximately 100 lb. per square inch, and the water pressure sufficient to bring the water into effective influence of the air pressure. After cutting, wash the surface until there is no trace of cloudiness in the wash water.
5. In areas where air water cutting cannot be satisfactorily accomplished, or in areas where it is undesirable to disturb the surface of the concrete before it has hardened, prepare the surface for receiving the next lift by wet sand blasting to immediately remove all laitance and unsound concrete prior to placing of the next lift. Thoroughly wash the surface of the concrete after sand blasting to remove all loose material.
6. Provide construction joints with concrete keyways, reinforcing steel dowels, and waterstops. The method of forming keys in keyed joints shall permit the easy removal of forms without chipping, breaking, or damaging the concrete.

C. Existing hardened concrete: where new concrete or grout is to be placed in contact with existing hardened concrete, texture the existing surface by chipping or other means so that an irregular surface having a height variance of not less than 1/4 inch is created. The existing concrete shall then be coated with a bonding agent and new concrete or grout placed.

3.03 WATERSTOPS

A. PVC Waterstops: Install in construction joints as indicated to form a continuous diaphragm. Install in longest lengths practicable. Support and protect exposed waterstops during progress of Work.
   1. At formed surfaces, a split form shall be used. The split form shall have a tight fit which prevents misalignment and concrete leakage.
   2. The embedded flange of the waterstop must be secured prior to concrete placement. The flange shall be secured at 12 inches on-center by factory installed hog rings or grommets at the outermost rib. Never place nails or screws through the body of the waterstop.
   3. All fittings and changes in direction shall be factory fabricated. Only straight butt splices shall be made in the field. Field splices shall be according to the manufacturer's written instructions and as follows:
      a. Cut adjoining ends square to form matching edges.
      b. Uniformly melt the ends at 380 F using a thermostatically controlled, Teflon coated splicing iron.
      c. When a 1/8-inch diameter melt bead develops on each waterstop end, remove the splicing iron and firmly press the two ends together in proper alignment. Hold until the material has fused and cooled. Allow the splice to cool naturally; do not quench.

B. Self-Expanding Strip Waterstops:
   1. Install in construction joints and at other locations indicated, according to manufacturer's written instructions, bonding or mechanically fastening and firmly pressing into place.
      a. Waterstop shall be bonded to the substrate using a continuous bead of ADEKA Ultra Seal P-201
   2. Install in longest lengths practicable.

3.04 CONCRETE PLACEMENT

A. Cold Weather:
   1. If air temperature is at or below 40 F, cold weather concreting shall be performed in accordance with ACI 306R
   2. No concrete shall be mixed or placed when the atmospheric temperature is at or below 35 F. The temperature shall be taken in the shade away from artificial heat.

3. In cases where the temperature drops below 40 F after the concreting operations have been started, sufficient canvas and framework or other type of housing shall be furnished to enclose and protect the structure, in accordance with the requirements of ACI 306R. Sufficient heating apparatus such as stoves, salamanders, or steam equipment and fuel to provide heat shall be supplied. The concrete shall be protected when placed under all weather conditions. Should concrete placed under such conditions prove unsatisfactory, remove and replace the concrete at no cost to the Owner.
4. When mixing with the air temperature below 40 F, water used for mixing shall be heated to raise the concrete temperature to 70 F. The temperature of the mixing water shall not exceed 165 F when entering the mixer.
5. If heating the mixing water only does not raise the placing temperature of the concrete to 70 F, the aggregate must also be heated, either by steam or dry heat, to raise the placing temperature of the concrete to the required temperature. In no case shall the aggregate temperature exceed 150 F as it enters the mixer. The heating apparatus shall heat the mass of the aggregate uniformly and preclude the occurrence of hot spots which burn the material.
6. Salts, chemicals, or other foreign materials shall not be mixed with the concrete to preventing freezing. Calcium chloride is not permitted.

B. Hot Weather

1. Hot weather is defined as any combination of high air temperature, low relative humidity and wind velocity that impairs the quality of the concrete. Hot weather concreting shall be in accordance with ACI 305R. Concrete shall be placed in the forms without the addition of any more water than that required by the design (slump). No excess water shall be added on the concrete surface for finishing. Control of initial set of the concrete and extending the time for finishing operations may be accomplished with the use of approved water reducing and set retarding admixture, as specified.
2. Maximum time intervals between the addition of mixing water and/or cement to the batch, and the placing of concrete in the forms shall not exceed the following (excluding HRWR admixture use):

Concrete Temperature	**Maximum Time From Water Batch to Placement**
Non-Agitated Concrete	
Up to 80 F	30 Minutes
Over 80 F	15 Minutes
Agitated Concrete	
Up to 75 F	90 Minutes
75 F to 89 F	60 Minutes

3.05

a. The use of an approved set-retarding admixture will permit the extension of the above time maximums by 30 minutes, for agitated concrete only.
b. The use of an approved high range water reducing (HRWR) admixture will allow placement time extensions as determined by the manufacturer.

2. The maximum temperature of concrete shall not exceed 90 F at the time the concrete is placed. The temperatures of the mixing water shall be reduced by the use of chilled water or ice.
3. The maximum temperature of concrete with high range water reducing admixture shall not exceed 100 F at the time concrete is placed.
4. Under extreme heat, wind, or humidity conditions, concreting operations may be suspended if the quality of the concrete being placed is not acceptable.

B. Handling and Transportation

1. Delivery tickets shall be required for each batch and shall be in accordance with ASTM C94, Section 16. Each delivery ticket must show plainly the amount of water, in gallons that can be added to the mixer truck at the site without exceeding the maximum water cement ratio approved for that mix design. Amount of water added must be in proportion to contents of truck.
2. Arrange and use chutes, troughs, or pipes as aids in placing concrete so that the ingredients of the concrete are not segregated. They shall be steel or steel lined. When steep slopes are necessary, equip the chutes with baffles or make in short lengths that reverse the direction of movement. Extend open troughs and chutes, if necessary, inside the forms or through holes left in the forms. Terminate the ends of these chutes in vertical downspouts.
3. Keep chutes, troughs and pipes clean and free from coatings of hardened concrete by thoroughly flushing with water before and after placement. Discharge water used for flushing away from the concrete in place.
4. Concrete pumping is permitted and shall comply with ACI 304.2R.
5. Carting or wheeling concrete batches on completed concrete floor slab shall not be permitted until the slab has aged at least 4 curing days. Unless pneumatic tired carts are used, wheel the carts on timber planking so that the loads and impact are distributed over the slab. Curing operations shall not be interrupted for the purpose of wheeling concrete over finished slabs.

C. Depositing:

1. The method and manner of placing shall prevent segregation or separation of the aggregate or the displacement of the reinforcement. Use drop chutes of rubber or metal when necessary. Prevent the spattering of forms or reinforcement bars if the spattered concrete dries or hardens before it is incorporated into the mass.
2. Fill each part of the forms by directly depositing concrete as near its final position as possible. Work the coarse aggregate back from the face and force the concrete under and around the reinforcement bars without displacing them. Depositing large quantities at one point in the forms, then running or working it along the forms shall not be permitted.
3. After the concrete has taken initial set, the forms shall not be jarred. No force or load shall be placed upon projecting reinforcement.
4. Deposit the concrete through vertical drop chutes of rubber or metal of satisfactory size when operations involve placing concrete from above, such as directly into an excavated area, or through the completed forms, particularly in walls, piers, columns, and similar structures. Drop chutes shall be made in sections or provided in several lengths so that the outlet may be adjusted to proper heights during placing.
5. Except for drilled shafts, concrete shall not be dropped free more than 10 feet when HRWR admixture is used or 5 feet without HRWR. Place in continuous horizontal layers with a depth of from 1 to 3 feet, depending upon the wall thickness. Each layer shall be soft when a new layer is placed upon it. No more than 1 hour shall elapse between the placing of successive concrete layers in any portion of the structures included in continuous placement.
6. Place required sections in one continuous operation to avoid additional construction joints.
7. If excessive bleeding causes water to form on the surface of the concrete in tall forms, make the mix dryer to reduce the bleeding. In tall walls, place the concrete to a point about 1 foot below the top of the wall and allow to settle for 1 to 2 hours. Resume and complete concreting before set occurs.
8. For slopes greater than two percent, start concrete placement at low end and proceed upslope.

D. Consolidating

1. Compact each layer of concrete and flush the mortar to the surface of the forms by continuous-working mechanical vibrators. Vibrators which operate by attachment to forms shall not be used. Apply the vibrator to the concrete immediately after deposit. Move vibrator throughout the layer of the newly placed concrete, several inches into the plastic layer below. Thoroughly work the concrete around the reinforcement, embedded fixtures and into the corners and angles of the forms until it is well-compacted.
2. Mechanical vibrators shall not be operated so that they penetrate or disturb previously placed layers which are partially set or hardened. They shall not be used to aid the flow of concrete laterally. The vibration shall be of sufficient duration to completely compact and embed reinforcement and fixtures, but not to an extent causing segregation.
3. Keep vibrators constantly moving in the concrete and apply vertically at points uniformly spaced, not farther apart than the radius over which the vibrator is visibly effective. The vibrator shall not be held in one location longer than required to produce a liquified appearance on the surface.
4. When submerged in concrete, internal vibrators shall maintain a frequency of not less than 6,000 impulses per minute for spuds with diameters greater than 5 inches and 10,000 impulses for smaller spuds. The vibration intensity (amplitude) shall be sufficient to produce satisfactory consolidation.
5. Provide one vibrator (powered pneumatically or electrically) for each 10 cubic yards of concrete per hour being placed. Provide at least one vibrator, which may be of the gasoline powered type, as a standby for each two vibrators in service. To produce satisfactory consolidation, and based upon the observed performance, the Owner's representative may require the use of a larger sized and powered vibrator.
6. Check vibrators intended for regular service or standby service before beginning concreting operations.

E. Placement in Water:

1. Deposit concrete in water only when dry conditions cannot be obtained. The forms, cofferdams, or caissons shall be sufficiently tight to prevent any water flowing through the space where concrete is to be deposited. Pumping of water shall not be permitted while the concrete is being placed, nor until it has set for at least 36 hours.
2. Carefully place the concrete compact mass using a tremie, closed bottom dumping bucket, or another approved method which does not permit the concrete to fall through the water without protection. The concrete shall not be disturbed after being deposited. Regulate depositing to maintain horizontal surfaces.
3. When a tremie is used, it shall consist of a tube constructed in sections having watertight connections. The means of supporting the tremie shall permit the movement of the discharge end over the entire top surface of the work, and shall allow the tremie to be rapidly lowered to retard the flow. The number of times it is necessary to shift the location of the tremie shall be held to a minimum for any continuous placement of concrete. During the placing of concrete, keep the tremie tube full to the bottom of the hopper. When a batch is dumped into the hopper, slightly raise the tremie, but not out of the concrete at the bottom, until the batch discharges to the level of the bottom of the hopper. Stop the flow by lowering the tremie. Continue placing operations until the work is completed.
4. When concrete is placed by means of the bottom dump bucket, the bucket shall have a capacity of not less than 1/2 cubic yard. Lower the bucket gradually and carefully until it rests upon the concrete already placed. Raise it very slowly during the discharge travel to maintain still water at the point of discharge and to avoid agitating the mixture.
5. Use a sump or other approved method to channel displaced fluid and concrete away from the shaft excavation. Recover slurry and dispose of it as approved. Do not discharge displaced fluids into or in close proximity to streams or other bodies of water.

F. Placement in Slabs:

1. Allow concrete in columns, walls and deep beams or girders to stand for at least 1 hour to permit full settlement from consolidation, before concrete is placed for slabs they are to support. Haunches are considered as part of the slab and shall be placed integrally with them.
2. When monolithic slabs are placed in strips, the widths of the strips, unless otherwise specified or indicated, shall insure that concrete in any one strip is not allowed to lie in place for more than 1 hour before the adjacent strips are placed.
3. Immediately before placing concrete, thoroughly dampen the earthen cushion to receive concrete to prevent moisture absorption from the concrete.
4. As soon as concrete placing is complete for a slab section of sufficient width to permit finishing operations, level the concrete, strike off, tamp and screed. The screed shall be of a design adaptable to the use intended, shall have provision for vertical adjustment and shall be sufficiently rigid to hold true to shape during use.
5. The initial strike off shall leave the concrete surface at an elevation slightly above grade so that, when consolidation and finishing operations are completed, the surface of the slab is at grade elevation.
6. Continue tamping and screeding operations until the concrete is properly consolidated and free of surface voids. Bring the surface to a smooth, true alignment using longitudinal screeding, floating, belting, and/or other methods.
7. When used, templates shall be of a design which permits early removal so satisfactory finishing at and adjacent to the template is achieved.
8. While the concrete is still plastic, straightedge the surface using a standard 10-foot metal straightedge. Lap each straightedge pass one-half of the preceding pass. Remove high spots and fill depressions with fresh concrete and re-float. Continue to check with a straightedge during the final finishing operation, until the surface is true to grade and free of depressions, high spots, voids, or rough spots.
9. Check the final surface with a straightedge. Ordinates measured from the face of the straightedge to the surface of the slab shall not exceed 1/16 inch per foot from the nearest point of contact. The maximum ordinate shall be 1/8 inch per 10 feet.
10. Unless noted otherwise, where floor drains are shown in slabs and sloping the slab is not indicated, slope slab to drain on a grade of 1/16 inch per foot with a maximum total slope of 1-1/4 inches. The thickness of slab at floor drain shall be the thickness of slab, as indicated on the plans.

G. Placement in Foundations: Place concrete in deep foundations so that segregation of the aggregates or displacement of the reinforcement is avoided. Provide suitable chutes or vertical pipes. When footings can be placed in dry foundation pits without the use of cofferdams or caissons, forms may be omitted and the entire excavation filled with concrete to the elevation of the top of footing. The placing of concrete bases above seal courses is permitted after the forms are free from water and the seal course cleaned. Execute necessary pumping or bailing during concreting from a suitable sump located outside the forms.

3.06 FINISHED FORMED SURFACES

A. Air voids, for all types of finishes, are defects and shall be removed by rubbing or patching.

B. Type of Finish
1. No Finish: Surfaces which are not visible from the inside or outside of the completed structure or more than 12 inches below finish grade
2. Smooth Finish: Surfaces exposed to view and areas below to a point 12 inches below grade

C. No Finish: After forms are removed, repair or patch tie holes and defects. Otherwise, no additional finish is required.

D. Smooth Finish: Unless otherwise shown on the schedule above, provide smooth form finish for concrete surfaces to be exposed to view. Surfaces to receive a rubbed finish shall have a smooth form finish. The form facing material shall produce a smooth, hard, uniform texture on the concrete. The arrangement of the facing material shall be orderly and symmetrical with a minimum number of seams. Patch tie holes and defects and remove fins flush with the adjacent surface.

3.07 FINISHING FLOORS AND SLABS

A. General: Comply with recommendations in ACI 302.1R for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

B. Finish slabs, platforms and steps monolithically and apply as indicated on the drawings and the following schedule of finishes:

1. Trowel Finish: slab surfaces exposed to view or to be covered with paint, or another thin film-finish coating system
2. Broom Finish: exterior concrete platforms, steps, and ramps

C. Trowel Finish:

1. After applying float finish, apply first trowel finish and consolidate concrete by hand or power-driven trowel. Continue troweling passes and re-straighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
2. Finish and measure surface so gap at any point between concrete surface and an unleveled freestanding 10-foot long straightedge, resting on two high spots and placed anywhere on the surface, does not exceed 1/8 inch.

D. Broom Finish: Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

E. Give sidewalks a brush finish, unless noted otherwise. Score sidewalks at a spacing equal to the width of the walk and edge on each side using a tool with a radius of approximately 1/4 inch.

F. Finishing in Hot, Dry Weather: During periods of high temperature and/or low humidity, take extreme care in finishing the slabs to eliminate initial shrinkage cracks. Following the initial set of concrete, but while the concrete is still “green” continue to finish as required to remove shrinkage cracks which may occur. In hot, dry weather, keep a cement finisher on the job following normal finishing operations for a sufficient length of time to insure the removal of initial shrinkage cracks.

3.08 MISCELLANEOUS CONCRETE ITEMS

A. Normal Shrinkage Grouting:

1. Prior to grout application, thoroughly clean the surface of all foreign matter and wet down. Thoroughly clean the foundation and the forms set in place and securely anchor, with holes or cracks in forms caulked with rags, cotton waste or dry sand mixture to prevent the loss of grout. The necessary materials and tools shall be on hand before starting grouting operations. Concrete shall be damp when the grout is poured, but shall not have excess water to dilute the grout.
2. After wetting and just prior to grouting, sprinkle the surface lightly with cement to improve the bond between the grout and the surface.
3. After mixing, quickly and continuously place the grout to avoid overworking, segregation and breaking down of the initial set. Mix and place the grout according to the manufacturer’s recommendations. Cure grout using wet curing method for concrete. Grout shall receive a steel trowel finish.

B. Non-Shrink Grout:

1. Obtain field technical assistance from the Grout manufacturer, as required, to insure that grout mixing and installation comply with the manufacturer's recommendations and procedures.
2. Saturate the foundation for non-shrink grouts 24 hours before installation and clear of excess water. Free baseplates or bedplates of oil, grease, laitance and other foreign substances.
3. Place grout according to the manufacturer's directions so that spaces and cavities below the top of the baseplates and bedplates are completely filled. Provide forms where structural components of the baseplates or bedplates do not confine the grout. Where necessary and acceptable under the manufacturer's procedures, a round head pencil vibrator, 3/4-inch maximum diameter may be used to consolidate the grout.
4. Steel trowel finish the non-shrink grout where the edge of the grout is exposed to view and after the grout has reached its initial set. Cut off the exposed edges of the grout at a 45 degree angle to the baseplate, bedplate, member, or piece of equipment.
5. Wet curing should occur for at least 3 days, unless specified by manufacturer, with wet rags, wet burlap or polyethylene sheets. Keep cloths constantly wet for the curing cycle.
6. Clean and dry the foundation, baseplate or other surface of epoxy grouts prior to installation. Dry curing is acceptable for epoxy grouts.
7. Use epoxy non-shrink grout under all machinery, pumps, equipment, and where chemicals are present that would abate cementitious non-shrink grouts.
8. Mix, install, cure, and finish epoxy grouts according to the manufacturer's recommendations. Install grout in recommended lifts to prevent excess heat.

3.09 CONCRETE PROTECTION AND CURING

A. General: Give careful attention to proper concrete curing. The curing methods shall be wet curing, sheet materials conforming to ASTM C171, or membrane curing compound conforming to ASTM C309. Membrane curing is not permitted on surfaces to be rubbed or on surfaces to which additional concrete, plaster mix mortar or terrazzo is to be applied. Unless the curing method is specified otherwise, select the appropriate curing method.

B. Length of Curing Period:
   1. A "curing day" shall be any day on which the atmospheric temperature taken in the shade, or the air temperature adjacent to the concrete, remains above 50 F for at least 18 hours.
   2. Cure concrete for a period of 7 consecutive days. In cold weather, when curing may be retarded, extend this period to 7 "curing days", up to a limit of 14 consecutive days.

C. Wet Curing:
   1. Immediately following the finishing operations, cover concrete slabs, including roof slabs, with wet cotton mats or with a temporary covering of canvas or burlap. Keep thoroughly wet for a period of 4 curing days after the concrete is placed. The covering shall be held in direct contact with the concrete. A temporary covering shall be required when the size of slab, size of mats, or other factors dictate that the mats cannot be placed immediately after the finishing operations without marring the finishing of the slab.
   2. Water used for curing shall be free from injurious amounts of oil, acid, alkali, salt, or other deleterious substances.
   3. Canvas or burlap covering material shall weigh not less than 12 ounces per square yard. Place the sections with a lap at the edges of at least 8 inches. Saturate cover material with water previous to placing. Keep saturated as long as it remains in place. Use care in the placing of the cover material to prevent marring the concrete surface.
   4. When temporary coverings are used, keep them in place only until the slab has sufficiently hardened so that a cotton mat covering can be substituted without marring or disturbing the slab finish. Thoroughly saturate cotton mats before placing and keep the mats on the slab in a saturated condition for a period of at least 4 curing days.

D. Sheet Curing: Sheet materials shall conform to ASTM C171. They shall be in contact with the entire concrete surface and applied according to the manufacturer's recommendations. Patch all holes. Where pedestrian traffic is unavoidable, provide suitable walkways to protect the sheet material.

3.10 CONCRETE SURFACE REPAIRS

A. After the tie rods are broken back or removed, thoroughly clean the holes to remove grease and loose particles. Patch holes with structural concrete repair material. After the holes are completely filled, strike off flush excess mortar and finish the surface to render the filled hole inconspicuous.

B. If the surface of the concrete is bulged, uneven, or shows honeycombing or form marks, which in the Inspector's opinion cannot be repaired satisfactorily, remove and replace the entire section.

C. Patch honeycomb and minor defects in all concrete surfaces with structural concrete repair material.

3.11 FIELD QUALITY CONTROL

A. Testing:

1. General:
   a. Tests shall be required throughout the work to monitor the quality of concrete. Samples shall be taken in accordance with ASTM C172
   b. The Inspector may waive these requirements on concrete placements of ten cubic yards or less. However, evidence shall be furnished showing a design mix which meets the specifications.
   c. Unless noted otherwise, testing of the materials, ready mix, transit mix or central plant concrete will be by an independent testing agency. The Contractor will select and pay for this service. A summary of all tests performed will be available. No concrete shall be placed without a representative present at either the plant or at the project site.
2. Slump Test: Slump tests, in accordance with ASTM C143, shall be used to indicate the workability and consistency of the concrete mix from batch to batch. Generally, a slump test shall be made at the start of operations each day, at regular intervals throughout a working day, and at any time when the appearance of the concrete suggests a change in uniformity.
3. Air Content Test: Tests for the concrete's air content shall be made in accordance with ASTM C231 or ASTM C173, at the point of delivery of concrete, prior to placing in forms. The test shall be made frequently to monitor a proper air content uniform from batch to batch.
4. Temperature Test: The temperature of the concrete to be placed shall be taken with a thermometer immediately before placement, with the point of measurement being in the chute or bucket. Temperature test shall be performed for each truck. Record temperatures on batch ticket.
5. Compression Test:
   a. Compression test specimens shall be 6-by-12-inch concrete cylinders made and cured in accordance with ASTM C31. If the maximum aggregate size is no longer than 1 inch, 4-by-8-inch concrete cylinders are acceptable. No fewer than four 6-by12-inch specimens shall be made for each test sample. Samples shall be taken at a minimum of every 50 cubic yards of concrete for each class placed. At least one set of test specimens per day shall be made for each class of concrete used that day. Specimens shall be cured under laboratory conditions specified in ASTM C31. Additional concrete cylinders may be required for curing on the job under actual job curing conditions. These samples could be required when:
      1) There is a possibility of the air temperature surrounding the concrete falling below 40 F, or rising above 90 F.
      2) The curing procedure may need to be improved and/or lengthened.
      3) It is necessary to determine when the structure may be put into service.

b. Test one (1) cylinder at seven (7) days, two (2) at twenty-eight (28) days, and one (1) when so directed.
c. The value of each test result shall be the average compressive strength of all of the cylinders in the test sample. All cylinders within a test sample shall be taken at the same time from the same batch of concrete. For the 28-day cylinders, the strength level shall be satisfactory if the averages of all sets of three consecutive strength test results exceed the required design compressive strength, and no individual strength test result falls below the required compressive strength by more than 500 psi.
d. Report the mix, slump, location of concrete in the structure, and test results prior to the addition of any plasticizers.

6. Core Test
   a. Provide only when specifically so directed by the Inspector because of low cylinder test results.
   b. Cut from locations directed by the Inspector, secured in accordance with ASTM C42, and prepared and tested in accordance with ASTM C39.
7. Placement Inspections
   a. On concrete over 2,000 psi, provide continuous or other inspection as required by governmental agencies having jurisdiction.
   b. Throughout progress of concrete placement, take slump tests to verify conformance with specified slump.
   c. Using all required personnel and equipment, throughout progress of concrete placement verify that finished concrete surfaces will have the level or slope that is required by the Contract Documents.
8. Failure to Meet Requirements:
   a. Should the 7-day strengths shown by the test specimens fall below the required values, additional curing shall be performed on those portions of the structures represented by the test specimens at the Contractor's expense. Test cores shall be obtained and tested in accordance with ASTM Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete, Designation C 42. If additional curing does not give the strength required, the Owner reserves the right to require strengthening, replacement of those substandard portions of the structure, or additional testing, at the Contractor's expense.
   b. Upon receipt of the Contractor's written request, substandard concrete work may be reexamined in place by nondestructive testing methods or core samples, in accordance with ACI 301. The services of an independent testing laboratory shall be retained and all expenses paid without compensation from the Owner. Laboratory results shall be evaluated by the Engineer, who shall make the final decision on acceptability of the concrete in question. Core sample holes shall be repaired.

B. The Owner may withhold payment for any section of concrete which does not meet the requirements of these specifications. Withheld payment shall be based upon the unit prices established for concrete and reinforcing steel. Payment shall be withheld until the unacceptable concrete has been refinished, removed and replaced or otherwise brought into conformance with the specifications.

C. PVC Waterstops: Waterstops shall be observed by the Owner's representative prior to concrete placement. Unacceptable splicing defects include:
   1. Misalignment of center bulb, ribs and end bulbs greater than 1/16 inch.
   2. Bond failure at joint deeper than 1/16 inch.
   3. Misalignment which reduces waterstop cross-section more than 15 percent.
   4. Bubble or visible porosity in the weld.
   5. Visible signs of splice separation when a cooled splice is bent by hand at a sharp angle.
   6. Charred or burnt material.

END OF SECTION

SECTION 32 91 13 TOPSOILING AND FINISHED GRADING

1.00 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Topsoiling and finished grading.

B. Related Specification Sections include but are not necessarily limited to:
   1. Section 32 92 19 - Seeding and Sodding.

C. Location of Work: All areas within limits of grading and all areas outside limits of grading which are disturbed in the course of the work.

1.02 SUBMITTALS

A. Shop Drawings:
   1. Project Data: Test reports for furnished topsoil.

1.03 SITE CONDITIONS

A. Verify amount of topsoil stockpiled and determine amount of additional topsoil, if necessary to complete work.

2.00 PRODUCTS

2.01 MATERIALS

A. Topsoil:
   1. Original surface soil typical of the area.
   2. Existing topsoil stockpiled
   3. Friable, loamy soil capable of supporting native plant growth.

2.02 TOLERANCES

A. Finish Grading Tolerance: ±0.1 FT from required elevations.

3.00 EXECUTION

3.01 PREPARATION

A. Correct, adjust and/or repair rough graded areas.
   1. Cut off mounds and ridges.
   2. Fill gullies and depressions.
   3. Perform other necessary repairs.
   4. Bring all sub-grades to specified contours, even and properly compacted.

B. Loosen surface to depth of 2 IN, minimum.

C. Remove all stones and debris over 2 IN in any dimension.

3.02 PLACING TOPSOIL

A. Do not place when subgrade is wet or frozen enough to cause clodding. Spread and lightly compact to a depth of 4 IN for all disturbed earth areas.

B. If topsoil stockpiled is less than amount required for work, furnish additional topsoil at no cost to Owner.

C. Provide finished surface free of stones, sticks, or other material 1 IN or more in any dimension.

D. Provide finished surface smooth and true to required grades.

E. Restore stockpile area to condition of rest of finished work.

3.03 ACCEPTANCE

A. Upon completion of topsoiling, obtain Inspector's acceptance of grade and surface.

B. Make test holes where directed to verify proper placement and thickness of topsoil.

END OF SECTION

SECTION 32 92 19 SEEDING AND SODDING

1.00 GENERAL

1.01 SUMMARY

A. Section Includes

1. The Work includes furnishing all labor, materials, equipment and incidentals necessary to install and/or replace site grasses including:
   a. Soil preparation
   b. Seeding
   c. Erosion control blanket
   d. Sodding

B. Related Specification Sections include but are not necessarily limited to

1. Section 32 91 13 – Topsoiling and Finished Grading.

1.02 PRICE AND PAYMENT PROCEDURES [NOT USED]

1.03 REFERENCES

A. Reference Standards

1. Reference standards cited in this specification refer to the current reference standard published at the time of the latest revision date logged at the end of this specification, unless a date is specifically cited.
   a. American Standard for Nursery Stock published by American Association of Nurserymen; October 27, 1980, Edition.
   b. American Joint Committee on Horticultural Nomenclature; 1942 Edition of Standardized Plant Names.

1.04 ADMINISTRATIVE REQUIREMENTS [NOT USED]

1.05 SUBMITTALS [NOT USED]

1.06 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS

A. Product Data

1. Erosion control blanket
2. Sample label or specification of the fertilizer proposed to be used in each application

B. Certificates

1. Receipts for all fertilizer, grass seed, and erosion control blanket.

C. Manufacturers' Instructions

1. Installation of erosion control blanket

1.07 CLOSEOUT SUBMITTALS [NOT USED]

1.08 MAINTANENCE MATERIAL SUBMITTALS [NOT USED]

1.09 QUALITY ASSURANCE [NOT USED]

1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]

1.11 FIELD [SITE] CONDITIONS [NOT USED]

1.12 WARRANTY

A. Special Warranty

1. Provide a uniform stand of grass by watering, mowing, and maintaining lawn areas until final acceptance. Re-seed or re-sod areas which fail to provide a uniform stand of grass with specified materials until all affected areas are accepted by the Inspector.

2.00 PRODUCTS

2.01 FERTILIZER

A. Seed

1. Fertilizer shall be a commercial product, uniform in composition, free flowing, and suitable for application with approved equipment.
2. Fertilizer shall be 10-20-10 or approved equal.

B. Sod

1. Fertilizer shall be a commercial product, uniform in composition, free flowing, and suitable for application with approved equipment, Fertilizer shall be delivered to the site in fully labeled original containers. Fertilizer which has been exposed to high humidity and moisture has become caked or otherwise damaged making it unsuitable for use will not be acceptable.
2. Initial Planting Application: Fertilizer for the initial planting application shall be of an organic base containing by weight the following (or other approved) percentages of nutrients: 15-15-15 (N-P-K), also containing 10-15% sulphate and traces of iron and zinc as required and approved by the Owner.
3. Post Planting Application: Fertilizer for the post planting application will be a chemical base fertilizer containing by weight the following percentages of nutrients: 21-0-0 (N-P-K) ammonium sulphate or the nitrogen equivalent of 33-0-0 ammonium nitrate.

2.02 SEEDING

A. Lawn Seed

1. Provide fresh, clean, new crop hulled seed tested to minimum percentages of purity and germination as established by Official Seed Analysts of North America.
2. Provide seed of grass species, proportions and maximum percentages of purity, germination and be free of: Poa Annua, bent grass, and noxious weed seed.

B. Types

1. Within Floodplain or in an along drainage channel – Riparian Recovery Mix by Native American Seed or approved equal.
   a. Apply at a rate of twelve (12) pounds per acre
2. All other seed locations – to be per dominant grass species at site provided by Native American Seed or approved equal.
3. If planting from September to March, Cereal Rye Grain by Native American Seed, or approved equal, shall be used <u>in addition</u> to the growing season types listed above. Cereal Rye Grain shall be used as a nurse crop.
   a. Apply at a rate of 50 (fifty) pounds per acre on level ground and 100 (one hundred) pounds per acre on erodible slopes.

2.03 EROSION CONTROL BLANKET

A. Erosion Control Blanket shall be AMXCO Curlex Type II Blanket as manufactured by American Excelsior Company, Arlington, TX or approved equal.

2.04 SOD

A. Type shall match existing grass and shall consist of stolons, leaf blades, rhizomes, and roots with healthy, virile system of dense, thickly matted roots throughout the soil of the sod for a thickness not less than three-quarters (3/4") inch.

B. Shall be alive, healthy vigorous, free of insects, disease, stones, and undesirable foreign materials and grasses.

C. The grass shall have been mowed prior to sod cutting so that the height of the grass shall not exceed two (2") inches. Sod shall have been produced on growing beds of clay or clay-loam topsoil. If sod is stacked, it shall be kept moist and shall be stacked roots-to-roots and grass-to-grass

D. Dimensions: All sod shall have been machine cut to uniform soil thickness of one (1") inch plus or minus one-quarter (1/4") inch. All sod shall be of the same thickness. Rectangular sections of sod may vary in length, but all shall be of equal width and of a size that permits the sod to be lifted, handled, and rolled without breaking. Broken pads and torn, uneven ends will be unacceptable.

2.05 WATER

A. Clean and free of industrial wastes or other substances harmful to the germination of the seed or to the growth of the vegetation

B. Furnish water as an ancillary cost to Contractor by means of temporary metering/irrigation, water truck, or by any other method necessary to achieve an acceptable stand of turf as defined in Paragraph 3.3.

C. To use fire hydrant, a meter must be obtained from the municipalities Utility Billing Division and a deposit must be paid.

D. Generally, an amount of water that is equal to the average amount of rainfall plus one half inch per week should be applied until accepted. The Contractor must also comply with the municipalities current Water Conservation Ordinance.

1. Seeding and sodding shall not take place during Stage 3 or Stage 4 water restrictions.

3.00 EXECUTION

3.01 SEEDING/SODDING LAWNS OR DISTURBED AREAS

A. Limits

1. Sod
   a. All disturbed areas.
2. Seeding
   a. None.

B. Responsibility

1. The Contractor shall utilize all such measures as may be necessary, including, but not limited to, protective fencing, sod, or erosion control netting to produce a finished continuous blanket of turf over all areas designated to receive turf.

C. Fertilizer

1. No fertilizer shall be applied prior to seeding.

D. Seeding Operations

1. Dry Seeding
   a. Seed immediately after preparation of bed. Acceptable seeding times are as follows:
      1) Riparian Recovery Mix and Midway Mix: April to August
      2) Cereal Rye Grain: September to March

b. Seed indicated areas, within contract limits and areas adjoining contract limits, disturbed as a result of construction operations.
c. Perform seeding operations when the soil is dry and when winds do not exceed five (5) miles per hour velocity.
d. Apply seed evenly by sowing equal quantities in two directions, at right angles to each other.
e. Sow grass seed at specified rate.
f. After seeding, lightly rake or drag surface of soil to incorporate seed into top 1/8" of soil. Roll with light lawn roller.
g. Thoroughly water seed immediately after planted.
h. Water until established.

E. Sodding Operations
1. Sod shall not be harvested or planted when its moisture condition is so excessively wet or dry that its survival will be affected.
2. All sod is to be harvested, delivered, and planted within a thirty-six (36) hour period of time.
3. Sod shall be protected from exposure to wind, sun, and freezing.

F. Erosion Control Blanket
1. Application
a. Apply erosion control blanket on seeded areas immediately after seeding.
b. Place erosion control blanket uniformly, as per industry standards.

3.02 LAWN AND MAINTANENCE

A. Maintain seeded/sodded lawn areas, including watering, spot weeding, mowing, applications of herbicides, fungicides, insecticides and reseeding until completion and final acceptance of the Project or as directed by the Owner.

B. Water regularly to maintain adequate surface soil moisture for proper seed germination. Water soil to a minimum depth of 4 inches within 48 hours of seeding.

C. Water as directed by the Inspector at least twice daily for 14 days after seeding/sodding in such a manner as to prevent washing of the slopes or dislodgement of the seed. The Contractor must also comply with the local municipalities current Water Conservation Ordinance.

D. Repair, re-seed/re-sod, and re-blanket all areas that are washed out, eroded, or do not catch.

E. Fertilize with organic fertilizer after germination, but prior to first mowing and acceptance.

3.03 FINAL ACCEPTANCE

A. Inspection to determine final acceptance of seeded lawns will be made by the Inspector upon Contractor's request. Provide notification at least ten (10) working days before requested inspection date.
1. Seeded/sodded areas will be acceptable provided all requirements, including maintenance, have been completed and a healthy, uniform, close stand of the specified grass is established, free of weeds, undesirable grass species, disease and insects.
2. In areas requested to be inspected, no individual lawn areas shall have bare spots or unacceptable cover totaling more than ten (10) square feet, with 85% total coverage over the entire project.

B. Upon final acceptance of the re-vegetation, the Owner will assume lawn maintenance.

END OF SECTION

Section 19 CERTIFICATE OF INTERESTED PARTIES

(Form 1295)

Check Here if this Section is NOT Used ☐

[CONTRACTOR - Insert Certificate of Interested Parties (Form 1295) Here]
[CITY – Insert Acknowledged Certificate of Interested Parties (Form 1295) Here]

In accordance with House Bill 1295, for certain contracts entered into on or after January 1, 2016, **CONTRACTORS** must submit a ***Certificate of Interested Parties*** form at the time the **CONTRACTOR** submits the signed contract to the **CITY**. This applies only to contracts with a value greater than $25,000.

The ***Certificate of Interested Parties*** (Form 1295) must be filed electronically with the Texas Ethics Commission using the online filing application located at https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm.

First time users need to create an account to register and receive a password. Click on the "Log In" button and then click on "Form 1295 Filings". In the next screen, click the link that says "Click here if you don't have a user ID". Enter the requested information, select the "User Type" of "Business Entity" and click on the "Create Account" button. An email will be sent to the email address you provided with a link to finish setting up your account. Follow the link provided in the email to complete the process of setting up your account. Enter all of the requested information and hit the "Save" button. A screen will appear with the information you have provided. Please verify this information and, if it is correct, click on "Accept". If it is not correct, click on "Update" and make the needed corrections.

Once an account is established, **CONTRACTORS** must log in to create a new ***Certificate of Interested Parties*** (Form 1295). *Hand-written copies are not acceptable.* Go to https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm. Click the "Log In" button and then click on "Form 1295 Filings". Enter your email address and password, select the "User Type" of "Business Entity" and click on the "Login" button. A screen with your user information will appear. If it is correct, click on "Accept". Click on the "Manage My 1295 Forms" button and then "Start a New Certificate". When the blank form comes up, enter the requested information into the appropriate boxes. Also enter the following information:

- Who is the Contract With?: Select "Other Governmental Agency"
- Agency/Entity Name: Enter "City of Tyler"
- Contract ID Number: Enter the City of Tyler Bid Number, located on the cover of the contract
- Description of Goods and Services to be provided: Enter the Project Name, located on the cover of the contract

For the purpose of this requirement, the following definitions apply:

- **Interested party** means: (1) a person who has a controlling interest in a business entity with whom a governmental entity or state agency contracts; or (2) a person who actively

participates in facilitating a contract or negotiating the terms of a contract with a governmental entity or state agency, including a broker, intermediary, adviser, or attorney for the business entity.

- **Controlling interest** means: (1) an ownership interest or participating interest in a business entity by virtue of units, percentage, shares, stock, or otherwise that exceeds 10 percent; (2) membership on the board of directors or other governing body of a business entity of which the board or other governing body is composed of not more than 10 members; or (3) service as an officer of a business entity that has four or fewer officers, or service as one of the four officers most highly compensated by a business entity that has more than four officers.
- **Intermediary** means: a person who actively participates in the facilitation of the contract or negotiating the contract, including a broker, adviser, attorney, or representative of or agent for the business entity who:
  1) receives compensation from the business entity for the person's participation;
  2) communicates directly with the governmental entity or state agency on behalf of the business entity regarding the contract; and
  3) is not an employee of the business entity.

If there are no interested parties, check the box indicating that there are none and then hit the "Next" button. If there are interested parties, click the "Add More" button located under the "List of Interested Parties" section of the form. Enter the requested information about the interested party. Click the "Add More" button for each additional interested party. When all interested parties have been entered, hit the "Next" button.

At the next screen, check the box indicating that you affirm that the information provided is correct. Also, enter the requested information and then hit "Submit". At the next screen, hit the "Print" button, then click "Open with Adobe Acrobat Reader" to create a pdf of the ***Certificate of Interested Parties*** (Form 1295). When the pdf opens, make sure to verify that all of the information is correct. *You cannot change information in the form once it has been entered.* If you find that information has been entered incorrectly, you will need to start a new form and re-enter all of the information.

If the form is correct, print out one (1) copy of the ***Certificate of Interested Parties*** (Form 1295) and sign and notarize it. Make as many additional photocopies as necessary and attach the original form in Section 19, "Certificate of Interested Parties" in one contract book and the photocopies in Section 19, "Certificate of Interested Parties" in the remaining contract books.

Upon receipt of the executed contracts from the **CONTRACTOR**, the **CITY** will acknowledge the ***Certificate of Interested Parties*** (Form 1295) and file the acknowledged form with the original form in the **CITY'S** files.