CONTRACT DOCUMENTS
AND
SPECIFICATIONS
FOR
PROJECT NO. 2035X001Z
BUILD/LINK-ADA
UPGRADES, FIBER OPTIC INSTALLATION, AND
TRAFFIC SIGNAL UPGRADES

ATTENDANCE AT PRE-BID CONFERENCE IS MANDATORY

PREPARED BY:
HNTB/BKL
715 Kirk Drive
Kansas City, MO 64105
(816) 527-2705 ph
Brian Comer

CITY OF
Tulsa
A New Kind of Energy™

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

Account Numbers: 2238FR0001.Capital.Infrstr.2500.25003122-541103

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

**PROJECT NO. 2035X001Z**  
BUILD/LINK-ADA UPGRADES,  
FIBER OPTIC INSTALLATION, AND TRAFFIC SIGNAL UPGRADES  

**ENGINEERING SERVICES DEPARTMENT**

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NOTICE TO BIDDERS
SEALED BIDS FOR
PROJECT NO. 2035X001Z

Notice is hereby given that pursuant to an order by the Mayor of the City of Tulsa, Oklahoma, sealed bids will be received in Room 260 of the Office of the City Clerk, City of Tulsa, 175 E. 2nd Street, Tulsa, Oklahoma 74103 until 8:30 a.m. the 18th day of November 2022 for furnishing all tools, materials and labor and performing the work necessary to be done in the construction of the following:

PROJECT NO. 2035X001Z BUILD/LINK-ADA UPGRADES, FIBER OPTIC INSTALLATION, AND TRAFFIC SIGNAL UPGRADES

The entire cost of the improvement shall be paid from Account No. 2238FR0001.Capital.Infrst.2500.25003122-541103

A MANDATORY Pre-Bid Conference is scheduled for Monday, October 31, 2020 at 9:30 a.m. and will be held through video conferencing with Microsoft Teams, invitation presented on the City of Tulsa’s website at this link: https://www.cityoftulsa.org/government/departments/engineering-services/construction-bids/

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

Bids will be accepted by the City Clerk from the holders of valid pre-qualifications certificates from the City of Tulsa in one or more of the following classifications: A or C

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

Contract requirements shall include compliance as required by law pertaining to the practice of non-discrimination in employment.
Attention is called to Resolution No. 18145 of August 23, 1988, requiring bidders to commit to the goal of employing on the project at least fifty percent bona fide residents of the City of Tulsa and/or MSA in each employment classification.

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

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

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

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

All bids will be opened and considered by the Bid Committee of said City at a meeting of said Committee to be held in the City Council Room of City Hall in said City at 9:00 a.m. on the 18th day of November 2022.

Dated at Tulsa, Oklahoma, this 14th day of October 2022.

(SEAL)

Christina Chappell
City Clerk
INSTRUCTIONS TO BIDDERS

B-1. BIDS

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

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

PROJECT NO. 2035X001Z BUILD/LINK-ADA UPGRADES, FIBER OPTIC INSTALLATION, AND TRAFFIC SIGNAL UPGRADES

Pre-qualification Certificate Number ____________

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

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

B-2. BID SECURITY

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

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

B-3 RETURN OF BID SECURITY

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

**B-4 WITHDRAWAL OF BIDS**

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

**B-5 REJECTION OF BIDS**

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

The City of Tulsa reserves the right to reject any and all bids when such rejection is in the best interest of the City of Tulsa. All bids are received subject to this stipulation and the City reserves the right to decide which bidder shall be deemed lowest responsible bidder.

A violation of any of the following provisions by the bidder shall be sufficient reason for rejecting his bid, or shall make any contract between the City of Tulsa and the Contractor that is based on his bid, null and void: divulging the information in said bid before the bids have been opened; submission of a bid which is incomplete, unbalanced, obscure, incorrect, or which has conditional clauses, additions, or irregularities of any kind not in the original proposal form, or which is not in compliance with the Instruction to Bidders and published Notice to Bidders, or which is made in collusion with another bidder. The City shall have the right to waive any immaterial defects or irregularities in any bid received.

**B-6 DISQUALIFICATION OF BIDDERS**

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

**B-7 SIGNATURE OF BIDDERS**

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

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

B-8 INTERPRETATION OF CONTRACT DOCUMENTS

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

B-9 LOCAL CONDITIONS AFFECTING WORK

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

B-10 TIME OF COMPLETION

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

B-11 QUALIFICATION OF BIDDERS
No bid will be received and filed by the City Clerk of the City of Tulsa unless the person submitting the bid has been pre-qualified as provided by ordinance, and is the holder of a current certificate of Pre-qualification in force and effect on the date such bid is to be submitted and filed.

**B-12 TAXES AND PERMITS**

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

**B-13 OKLAHOMA LEGAL REQUIREMENTS**

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

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

**B-14 BONDS**

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

- **Performance Bond** – A Performance Bond to the City in an amount equal to one hundred percent (100%) of the Contract price.
- **Statutory Bond** – A Statutory Bond to the State of Oklahoma in an amount equal to one hundred percent (100%) of the contract price.
- **Maintenance Bond** – A Maintenance Bond to the City in an amount equal to one hundred percent (100%) of the contract price.

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

Accompanying the bonds shall be a “Power-of-Attorney” authorizing the attorney-in-fact to bind the Surety Company and certified to include the dates of the bonds.
B-15 **BOUND COPY OF CONTRACT DOCUMENTS**

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

B-16 **EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS**

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

B-17 **BASIS FOR AWARD OF CONTRACT**

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

B-18 **TIME FOR AWARDING OF CONTRACT**

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

B-19 **SAFETY AND HEALTH REGULATIONS**

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

The Contractor is fully responsible for the safety of the work site and is expected to train their employees in all applicable safety issues. This should include but not be limited to: trench safety, confined space entry, head protection, etc. In accordance with construction contracts with the City, Authority, Board, or Commission, all applicable Labor and OSHA safety regulations must be followed.
Work sites must be monitored by the Contractor and safety provisions enforced. Contractors are asked to ensure that all employees are properly informed and trained in construction, work site safety.

B-20 VENDORS AND SUBCONTRACTOR IDENTIFICATION

Where Vendor and Subcontractor Identification Questionnaires are included in the bid documents, each bidder shall submit the Questionnaire directly to the Engineer no later than 5:00 p.m. on the first working day following the bid opening. Failure to submit the questionnaire may render the bid unresponsive and not eligible for award. The award of the Contract will be subject to the acceptability of the vendors and subcontractors listed. If an award is made, the vendors and subcontractors listed on the questionnaire shall be used on the project. No changes in the vendor and subcontractor list will be permitted unless prior consent is obtained from the Engineer.

B-21 U.S. ENVIRONMENTAL PROTECTION AGENCY NPDES REQUIREMENTS FOR STORMWATER DISCHARGES

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

B-22 AMERICANS WITH DISABILITIES ACT

The Contractor shall take the necessary actions to ensure its facilities are in compliance with the requirements of the Americans with Disabilities Act (ADA). It is understood that the program of the Contractor is not a program or activity of the City of Tulsa. The Contractor agrees that its program or activity will comply with the requirements of the ADA. Any costs of such compliance will be the responsibility of the Contractor. Under no circumstances will the Contractor conduct any activity, which it deems non-compliant with the ADA.
RESOLUTION NO. 18145

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

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

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

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

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

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

a. "Bidding Documents" or "Bid" means the bid notice, plans and specifications, bidding form, bidding instructions, special provisions and all other written instruments prepared by or on behalf of an awarding public agency for use by prospective bidders on a public construction contract.

b. (i) "Bona Fide Residents" shall include only those persons who are either registered to vote in the City of Tulsa or who have resided within the city limits for at least six months, or who have purchased a permanent residence within the city limits or who have leased a residence for at least a six month term. Residency may be further determined by a valid Oklahoma driver's license, a current Oklahoma license tag, and a valid Oklahoma automobile inspection sticker. (ii) Bona fide residents of MSA shall include only those persons who are registered to vote in outlying MSA areas or who have resided within the outlying MSA area for at least six months, or who have purchased a permanent residence within the outlying MSA areas or who have leased a residence for at least a six month term. Residency may be further determined by a valid Oklahoma driver's license, a current Oklahoma license tag, and a valid Oklahoma automobile inspection sticker.

c. "Public Construction Contract" or "Contract" means any contract exceeding Seven Thousand Five Hundred Dollars ($7,500.00) in amount, awarded by the City of Tulsa for the purpose of making any public improvements or constructing any public building or making repairs to the same.

d. "Public Improvement" means any beneficial or valuable change or addition, betterment, enhancement or amelioration of or upon any real property, or interest therein, belonging to the City of Tulsa, intended to enhance its value, beauty or utility or to adapt it to new or further purposes. The term does not include the direct purchase of materials, equipment or supplies by the City of Tulsa.
e. "MSA". All of the land areas composed of Creek County, Osage County, Rogers County, Tulsa County and Wagoner County.

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

a. Each bid shall be accompanied by a sworn statement that the bidder is committed to the goal of employing at least 50% bona fide residents of the City of Tulsa and/or the MSA in each classification as determined by the Oklahoma Commissioner of Labor.

b. The successful bidder will be responsible for having like requirements placed upon any subcontractor.

c. The successful bidder will submit to the Director or his designated representative of the Department of Human Rights any compliance reports involving the bidder and its subcontractors required by Title 31, Chapter 1, Section 9, of the Tulsa Revised Ordinances. The reports shall include information about the residence of each employee in each laboring and trade class applicable to any City project.

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

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

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

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

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

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

APPROVED, this 23rd day of August, 1988.

Rodger Randle

Mayor

ATTEST: Philip W. Wood

City Auditor

APPROVED: Neal E. McNeil

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

- APPROVED, this 23 day of August, 1988.

[Signature]
Mayor

ATTEST:

[Signature]
City Auditor

APPROVED:

[Signature]
City Attorney

CITY OF TOLEDO
FILED
AUG 23 1988

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

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

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

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

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

Company: ____________________________

Signed: ______________________________

____________________________
Title

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

____________________________
NOTARY PUBLIC

MY COMMISSION EXPIRES:

____________________________
COMMISSION NO.:  

Resolution No. 7404
RAC-1
(Must be submitted at time of Bid)
CITY OF TULSA
50% RESIDENT RESOLUTION
AFFIDAVIT FOR BID

STATE OF) )
COUNTY OF) ) ss:

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

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

__________________________  __________________________
BIDDER (Company Name)      SIGNED

__________________________
Title

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

__________________________
NOTARY PUBLIC

MY COMISSION EXPIRES:

__________________________
COMMISSION NO.:

__________________________
RRA-1
(Must be submitted at time of bid)
NON-COLLUSION AFFIDAVIT

STATE OF
) ss:
COUNTY OF
)
____________________________________, of lawful age, being first duly sworn, says that:

1. I am the duly authorized agent of the bidder submitting the competitive bid associated with this sworn statement for the purpose of certifying facts pertaining to the existence of collusion among bidders and between bidders and municipal officers or employees, as well as facts pertaining to the giving or offering of things of value to governmental personnel in return for special consideration in the letting of any contract pursuant to the bid;

2. I am fully aware of the facts and circumstances surrounding the making of the bid and have been personally and directly involved in the proceedings leading to the submission of such bid;

3. Neither the bidder nor anyone subject to the bidder's direction or control has been a party:
   a. to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding;
   b. to any collusion with any municipal official or employee as to quantity, quality or price in the prospective contract, or as to any other terms of such prospective contract; nor
   c. in any discussions between bidders and any municipal official concerning exchange of money or other things of value for special consideration in the letting of a contract.

4. If awarded the contract, neither the bidder nor anyone subject to the bidder's direction or control has paid, given or donated or agreed to pay, give or donate to any officer or employee of the City of Tulsa or of any public trust where the City of Tulsa is a beneficiary, any money or other thing of value, either directly or indirectly, in procuring the contract for which the bid is submitted.

________________________________________   ________________
BIDDER (Company Name)   Signed

________________________________________
Title

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

______________________________
NOTARY PUBLIC

MY COMMISSION EXPIRES: ____________________________
COMMISSION NO.: ____________________________

NA-1
(Must be submitted at time of bid)

BUSINESS RELATIONSHIP AFFIDAVIT

STATE OF )
) ss:
COUNTY OF )

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

__________________________________________

__________________________________________

__________________________________________

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

__________________________________________

__________________________________________

__________________________________________

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

__________________________________________

__________________________________________

__________________________________________

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

Signed: ________________________________

BIDDER (Company Name)

Title: ________________________________

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

__________________________________________

NOTARY PUBLIC

MY COMMISSION EXPIRES:

COMMISSION NO.: ________________________________

BR-1
INTEREST AFFIDAVIT

STATE OF ____________________

)ss.

COUNTY OF ___________________

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

______________________________________________

______________________________________________

______________________________________________

By______________________________________________

Signature

Title______________________________________________

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

______________________________________________

Notary Public

My Commission Expires:___________________________

Notary Commission Number:_______________________

County & State Where Notarized:___________________

The Affidavit must be signed by an authorized agent and notarized.
ELECTRONIC BID PROPOSAL INSTRUCTIONS - EXCEL SPREADSHEET
PROJECT NO. 2035X0012 Phase 1, 2, & 3

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

AGREEMENT FOR USING ELECTRONIC BID PROPOSAL

By and Between: David Urban HNTB, Michael Hino HNTB, Ryan Mahaffey BKL, (ENGINEER) and City of Tulsa. The enclosed electronic media is provided pursuant to your request and is for your limited use in connection with your submittal of Bid Proposal for Project No. 2035X0012, Phase 1, Phase 2, & Phase 3. In no event shall the information be used for any other purpose or be released to third parties without the written consent of the ENGINEER. In the event of a discrepancy between the hard copy and this electronic media at delivery or in the future, the hard copy shall govern. ENGINEER hereby disclaims any and all liability for the consequences from use of the electronic media and makes no warranty or guarantee of accuracy. RECIPIENT shall assume full responsibility for the uses and consequences of the electronic media. It is agreed that ENGINEER has and retains ownership of the electronic media. ENGINEER does not warrant or guarantee that the electronic data is compatible with RECIPIENT'S computer hardware or software, and ENGINEER'S responsibility for the electronic media is limited to replacement of defective media for a period of thirty (30) days after delivery to RECIPIENT. BY OPENING AND USING THIS FILE, YOU AGREE TO THESE TERMS AND CONDITIONS!!!
PROPOSAL
PROJECT NO. 2035X011Z, Phase 1, 2, & 3

TO: HONORABLE MAYOR
    CITY OF TULSA, OKLAHOMA

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

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

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

HEREBY PROPOSES: to enter into a contract to provide all necessary labor, materials, equipment and tools to completely construct and finish all the work required by the Contract Documents referred to therein; to complete said work within 730 calendar days after the work order is issued; and to accept in full payment therefore the amount set forth below for all work actually performed as computed by the Engineers as set forth in the Contract.

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

Note: - Item numbers omitted are not a part of the Contract.
## PROPOSAL FOR
ROUTE 66 AERO BUS RAPID TRANSIT STATIONS LINK TULSA - FIBER INSTALLATION
PROJECT NO. 2035X0012, Phase 1

### Phase 1

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## PROPOSAL FOR
ROUTE 66 AERO BUS RAPID TRANSIT STATIONS LINK TULSA - TRAFFIC SIGNAL UPGRADE
PROJECT NO. 2035X0012, Phase 2

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<td>65</td>
<td>613</td>
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<td>66</td>
<td>613</td>
<td>Audible Pedestrian Push Button Display/Programming Device</td>
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<td>67</td>
<td>613</td>
<td>Audible Pedestrian Push Button Control Card/Unit</td>
<td>EA</td>
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<td>EA</td>
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<td>Special Traffic Control</td>
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**TOTAL**

## PROPOSAL FOR
BUILD GRANT/LINK ADA UPGRADES
PROJECT NO. 2035X0012, Phase 3

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<th>ITEM NUMBER</th>
<th>SPEC NUMBER</th>
<th>ITEM DESCRIPTION</th>
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<td>TRAFFIC CONTROL</td>
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**TOTAL**

$50,000.00
BASE BID (ITEMS )
ADD ALT 1

$50,000.00
$0.00

BASE BID PLUS ADDITIVE ALTERNATES

$0.00

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

______________________________ %

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

Dated at Tulsa, Oklahoma, this ______ day of _________________________, 20__.

Respectfully submitted,

__________________________________

(Complete legal name of company)

__________________________________

(State of Organization)

By:

Title:

Printed Name:

ATTEST:

Title: Corporate Secretary

Printed Name:

(SEAL)

Address:

TelephoneNumber: ____________________

Fax Number: ____________________

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

__________________________________

__________________________________

__________________________________
Certificate of Secretary

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

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

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

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

(Signature)

Printed Name

(Assistant) Secretary
[SAMPLE CONSENT OF MEMBERS]

[NAME OF COMPANY], LLC

Consent of Members

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

DATED, this ______ day of _______, 20____.

Name printed:

Name Printed: ____________________________

[ADD ADDITIONAL LINES FOR ADDITIONAL MEMBERS]

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

CM-1
Date

Contractor

RE: City of Tulsa Project No. 2035X001Z BUILD/LINK-ADA UPGRADES, FIBER OPTIC INSTALLATION, AND TRAFFIC SIGNAL UPGRADES

TO WHOM IT MAY CONCERN:

Please be advised that the City of Tulsa, Oklahoma, a municipal corporation, has contracted for the construction of a public improvement project as referenced above, and that pursuant to Title 68 § Section 1356 (10), sales on tangible personal property or services to be wholly consumed in the performance of such projects are exempt from Oklahoma and City of Tulsa Sales Tax when:

"...Any person making purchases on behalf of such subdivision or agency of the state shall certify, in writing, on the copy of the invoice or sales ticket to be retained by the vendor that the purchases are made for and on behalf of such subdivision or agency of this state and set out the name of such public subdivision or agency."

This letter of authorization expires.

A photostatic copy of this letter may be considered as the original.

CITY OF TULSA

Paul D. Zachary, P.E.
City Engineer

cc: Ryan McKaskle

HAS:AT:

STED-1
EXTENSION OF TIME REQUEST
(to be submitted with each partial payment application)

DATE:________________________________________________________

CONTRACTOR:________________________________________________

ADDRESS:_________________________________________________________________

CONTRACT NO.:

PROJECT NO.:

DESCRIPTION:_________________________________________________________________

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

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

__________________________________________________________________________

EXTENSION OF CONTRACT TIME REQUIRED: _____ YES _____ NO

TOTAL OF EXTENSION TIME REQUESTED:_________________________________________________________________

IF YES GIVE REASON:__________________________________________________________________

__________________________________________________________________________

SIGNATURE - CONTRACTOR

__________________________________________________________________________

CONSULTING ENGINEER OR DEPARTMENT OF PUBLIC WORKS STAFF RECOMMENDATIONS

APPROVED: ___________________________ REJECTED: ___________________________

REASON:________________________________________________________________

__________________________________________________________________________

SIGNATURE

DATE

ACTION WILL BE TAKEN WITHIN 30 DAYS FROM RECEIPT OF REQUEST

ETR-1
CONTRACT FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS
TULSA, OKLAHOMA

THIS CONTRACT made and entered into the _____ day of ____________, 2022, by
and between _____ (list state) __________ (Corporation or Limited Liability Company)
of _______ , Oklahoma, hereinafter called the "CONTRACTOR", and the CITY OF
TULSA - TULSA, OKLAHOMA, a Municipal Corporation, herein called the "CITY."

WITNESSETH:

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

PROJECT NO. 2035X001Z BUILD/LINK-ADA UPGRADES, FIBER OPTIC
INSTALLATION, AND TRAFFIC SIGNAL UPGRADES

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

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

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

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

C-1
ARTICLE II. That the City shall pay to the Contractor for performance of the work embraced in this Contract, and the Contractor will accept as full compensation therefor, the sum (subject to adjustment as provided by the Contract) of ____________ AND /100 Dollars ($____________) for all work covered by and included in the Contract award and designated in the foregoing Article I; payments therefore to be made in cash or its equivalent, in the manner provided in the General Provisions.

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

All Work Completed: 730 calendar days

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

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

IN WITNESS WHEREOF, the parties have hereto set their hands and seals,

this __________ day of ______, 2022.
CITY OF TULSA, OKLAHOMA
a municipal corporation

By: ____________________________  ATTEST: ( SEAL )

________________________ Date: ________  __________________________ Date: ________
Mayor

City Clerk

APPROVED:

________________________ Date: ________  __________________________ Date: ________
City Attorney

City Engineer

CONTRACTOR

By: ____________________________

Printed Name ____________________________

________________________ Date: ________  __________________________ Date: ________
Title

Title

ATTEST:

________________________
Corporate Secretary

( SEAL )
AFFIDAVIT

STATE OF _______________

COUNTY OF _______________

________________________________________, of lawful age, being first duly
sworn, on oath says that (s)he is the agent authorized by the Contractor to submit
the above Contract to the CITY OF TULSA, Tulsa, Oklahoma.

________________________________________
Signature

Subscribed and sworn to before me this ______ day of ____________, 2022

________________________________________
NOTARY PUBLIC

My Commission Expires:

_____________________________________, ___.
PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That we, the undersigned, __________________________, (hereinafter called the Contractor"), duly authorized by law to do business as a construction contractor in the State of Oklahoma, and __________________________ (hereinafter called the "Surety"), a corporation organized under the laws of the State of __________________________, and authorized to transact business in the State of Oklahoma, as Surety, are hereby held and firmly bound unto the City of Tulsa, Tulsa, Oklahoma (hereinafter called the "City"), in the penal sum of __________________________.

Dollars (full amount of the Contract), ($______________) lawful money of the United States, for the payment of which, well and truly to be made unto the said City, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents, as follows:

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH THAT, WHEREAS, the Contractor has on the __________ day of _________________, __________, entered into a written contract with the City of Tulsa, Tulsa, Oklahoma, for furnishing all materials, labor, tools, equipment, and transportation necessary for:

PROJECT NO. 2035X001Z BUILD/LINK-ADA UPGRDES, FIBER OPTIC INSTALLATION, AND TRAFFIC SIGNAL UPGRADES

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

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

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

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

______________________________
CONTRACTOR (Principal)

BY: ATTEST:  ( S E A L )

______________________________ Date: ________________
Title: ________________________ Date: ________________

______________________________ Date: ________________
Attorney In Fact **

______________________________ Date: ________________
Surety ( S E A L )

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

(Accompany this Bond with Power Of Attorney)

APPROVED AS TO FORM:

______________________________ Date: ________________
City Attorney

______________________________ Date: ________________
City Clerk
STATUTORY BOND

WHEREAS, the undersigned has entered into a certain contract dated the day of , , , designated as Project No. 2035X001Z, for the construction of certain public improvements Consisting of Build/Link-Ada Upgrades, Fiber Optic Installation, and Traffic Signal Upgrades, to be situated and constructed on and through the property described in said Contract, including all of the work mentioned and described in said Contract, and to be performed by the undersigned strictly and punctually in accordance with the terms, conditions, drawings and specifications thereof, on file in the office of the office of the City Clerk.

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

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

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

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the contract or to the specifications.
IN WITNESS WHEREOF, the said Principal has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its duly authorized officers, and the said Surety has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its attorney-in-fact, duly authorized so to do, the day and year first above written.

__________________________________________
CONTRACTOR (Principal)

BY: ATTEST: ( SEAL )

Date: Date:________

Title: Title:

Date: Date:________

Attorney-In-Fact ** Surety ( SEAL )

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

(Accompany this Bond with Power-Of-Attorney)

APPROVED AS TO FORM:

__________________________________________ Date:________
City Attorney

__________________________________________ Date:________
City Clerk
MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That ________________________________________________________, as Principal, and ________________________________________________________, a corporation organized under the laws of the State of __________ and authorized to transact business in the State of Oklahoma, as Surety, are held and firmly bound unto the City of Tulsa in the Penal sum of _____________________________.

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

The condition of this obligation is such that:

WHEREAS, said Principal entered into a written contract with the City of Tulsa, Oklahoma dated ________________, ______, for

  Project No. 2035X001Z BUILD/LINK-ADA UPGRADES, FIBER OPTIC INSTALLATION, AND TRAFFIC SIGNAL UPGRADES

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

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

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

MB-1
IN WITNESS WHEREOF, the said Principal has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its duly authorized officers, and the said Surety has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its attorney-in-fact, duly authorized so to do, the day and year first above written.

__________________________
CONTRACTOR (Principal)

BY: ........................................ Date: .................................
Title: 

ATTEST: (SEAL)

__________________________
Title: 

Date: .................................

__________________________
Title: 

Date: .................................

__________________________
Date: .................................
Attorney-In-Fact

__________________________
Date: .................................
Surety (SEAL)

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

(Accompany this Bond with Power-Of-Attorney)

APPROVED AS TO FORM:

__________________________
City Attorney

__________________________
Date: .................................

__________________________
City Clerk

__________________________
Date: .................................

MB-2
AFFIDAVIT OF CLAIMANT

STATE OF __________________________

COUNTY OF __________________________

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

By: __________________________________________
    Signature

Name: __________________________________________

Company: _______________________________________

Title: __________________________________________

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

________________________________________________
Notary Public

My Commission Expires: __________________________

Notary Commission Number: _______________________

AC-1
FTA Federally Required Contract Clause Form FOR PROJECT: Executing this agreement, the undersigned Contractor, certifies to abide by all the Federal Clauses herein and the subcontractors are to abide by said clauses.

1. Fly America Requirements – Contracts for foreign air transport
2. Buy America Requirements – Contracts of $150,000.00 and up – signature page herein
3. Cargo Preference Requirements – Contracts for foreign ocean transport
4. Energy Conservation Requirements – All Contracts
5. Clean Water Requirements – Contracts of $150,000.00 and up
6. Lobbying – Contracts of $150,000.00 and up - signature page herein
7. Access To Records and Reports – All Contracts
8. Federal Changes – All Contracts
9. Clean Air Requirements – Contracts of $150,000.00 and up
10. Recycled Products – Contracts of $10,000.00 and up for items designated by EPA
11. No Government Obligation to Third Parties – All Contracts
12. Program Fraud and False or Fraudulent Statements and Related Acts - All Contracts
13. Termination – All Contracts noted in the Standard Conditions
14. Government-wide Debarment and Suspension – Contracts of $25,000.00 and up - signature page herein
   a. Lower Tier Debarment Certification – Contracts of $25,000.00 and up – Signature page herein
15. Civil Rights Requirements – All Contracts
16. Breaches and Dispute Resolution – Contracts of $150,000.00 and up
17. Disadvantaged Business Enterprises (DBE) - All Contracts
18. Incorporation of Federal Transit Administration (FTA) Terms – All Contracts
19. Special Notification Requirements for States – All Contracts
20. Contract Work Hours and Safety Standards Act
21. Bonding Requirements
22. Seismic Safety Requirements
23. ADA Access
24. Davis-Bacon and Copeland Anti-Kickback Acts
25. Anti-Collusion Affidavit – All Contracts
26. Non-Discrimination Certification – All Contracts

By signing this document, I declare that I am duly authorized to make these certifications and assurances and bind the company. Thus, the contractor agrees to comply with all City, State and Federal statues, regulations, executive orders, and administrative guidance required for this Contract. The contractor also affirms the truthfulness and accuracy of the certifications and assurances it has made in the statements submitted herein and this document and any other submission made and acknowledges that the provision of the Program Fraud Civil Remedies Act of 1986, 31 U. S. C. 3801 et seq., as implemented by U. S. Dot regulations, “Program Fraud Civil Remedies,” 49 C.F.R part 31 apply to any certification, assurance or submission made for this Contract.” In signing this document, I declare under penalties of perjury that the forgoing certifications, assurances, and any other statements made by me on behalf of the contractor are true and correct. All above forms are available in the Procurement and Grants Dept.

Company Name ____________________________ Date ____________________________

Officer’s Name ____________________________ Print Title ____________________________

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

Notary Public: ____________________________ Notary Number ____________________________ My Commission Expires ____________________________
1. Fly America Requirements

49 U.S.C. §40118
41 CFR Part 301-10

Applicability to Contracts

The Fly America requirements apply to the transportation of persons or property, by air, between a place in the U.S. and a place outside the U.S., or between places outside the U.S., when the FTA will participate in the cost of such air transportation. Transportation on a foreign air carrier is permissible when provided by a foreign air carrier under a code share agreement when the ticket identifies the U.S. air carrier's designator code and flight number. Transportation by a foreign air carrier is also permissible if there is a bilateral or multilateral air transportation agreement to which the U.S. Government and a foreign government are parties and which the Federal DOT has determined meets the requirements of the Fly America Act.

Applicability to Micro-Purchases

Micro-purchases are defined as those purchases under $2,500. These requirements do not apply to micro-purchases.

Flow Down Requirements

The Fly America requirements flow down from FTA recipients and subrecipients to first tier contractors, who are responsible for ensuring that lower tier contractors and subcontractors are in compliance.

Model Clause/Language

The relevant statutes and regulations do not mandate any specified clause or language. FTA proposes the following language:

Fly America Requirements - The Contractor agrees to comply with 49 U.S.C. 40118 (the "Fly America” Act) in accordance with the General Services Administration’s regulations at 41 CFR Part 301-10, which provide that recipients and subrecipients of Federal funds and their contractors are required to use U.S. Flag air carriers for U.S Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. The Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. The Contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

2. Buy America Requirements

49 U.S.C. 5323(j)
49 CFR Part 661

Applicability to Contracts

The Buy America requirements apply to the following types of contracts: Construction Contracts and Acquisition of Goods or Rolling Stock (valued at more than $150,000).

Flow Down

The Buy America requirements flow down from FTA recipients and subrecipients to first tier contractors, who are responsible for ensuring that lower tier contractors and subcontractors are in compliance. The $150,000 threshold applies only to the grantee contract, subcontracts under that amount are subject to Buy America.

Mandatory Clause/Language

The Buy America regulation, at 49 CFR 661.13, requires notification of the Buy America requirements in FTA-funded contracts, but does not specify the language to be used. The following language has been developed by FTA.

Buy America - The contractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. 661.7, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, and microcomputer
equipment and software. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content.

A bidder or offeror must submit to the FTA recipient the appropriate Buy America certification (below) with all bids or offers on FTA-funded contracts, except those subject to a general waiver. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

Certification requirement for procurement of steel, iron, or manufactured products.

Certificate of Compliance with 49 U.S.C. 5323(j)(1)
The bidder or offeror hereby certifies that it will meet the requirements of 49 U.S.C. 5323(j)(1) and the applicable regulations in 49 CFR Part 661.5.

Date __________________________

Signature __________________________

Company Name __________________________

Title __________________________

Certificate of Non-Compliance with 49 U.S.C. 5323(j)(1)
The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(1) and 49 C.F.R. 661.5, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Date __________________________

Signature __________________________

Company Name __________________________

Title __________________________

3. Cargo Preference Requirements

46 U.S.C. 1241
46 CFR Part 381

Applicability to Contracts
The Cargo Preference requirements apply to all contracts involving equipment, materials, or commodities which may be transported by ocean vessels.

Applicability to Micro-Purchases
Micro-purchases are defined as those purchases under $2,500. These requirements do not apply to micro-purchases.

Flow Down
The Cargo Preference requirements apply to all subcontracts when the subcontract may be involved with the transport of equipment, material, or commodities by ocean vessel.

Model Clause/Language
The MARAD regulations at 46 CFR 381.7 contain suggested contract clauses. The following language is proffered by FTA.

Cargo Preference - Use of United States-Flag Vessels - The contractor agrees: a. to use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo carriers, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels; b. to furnish within 20 working days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the FTA recipient.
(through the contractor in the case of a subcontractor’s bill-of-lading.) c. to include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

4. Energy Conservation Requirements

42 U.S.C. 6321 et seq.
49 CFR Part 18

Applicability to Contracts
The Energy Conservation requirements are applicable to all contracts.

Applicability to Micro-Purchases
Micro-purchases are defined as those purchases under $2,500. These requirements do not apply to micro-purchases.

Flow Down
The Energy Conservation requirements extend to all third party contractors and their contracts at every tier and subrecipients and their subagreements at every tier.

Model Clause/Language
No specific clause is recommended in the regulations because the Energy Conservation requirements are so dependent on the state energy conservation plan. The following language has been developed by FTA.

Energy Conservation - The contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

5. Clean Water Requirements

33 U.S.C. 1251

Applicability to Contracts
The Clean Water requirements apply to each contract and subcontract which exceeds $150,000.

Flow Down
The Clean Water requirements flow down to FTA recipients and subrecipients at every tier.

Model Clause/Language
While no mandatory clause is contained in the Federal Water Pollution Control Act, as amended, the following language developed by FTA contains all the mandatory requirements.

Clean Water - (1) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

(2) The Contractor also agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FTA.

6. Lobbying

31 U.S.C. 1352
49 CFR Part 19
49 CFR Part 20

Applicability to Contracts
The Lobbying requirements apply to Construction/Architectural and Engineering/Acquisition of Rolling Stock/Professional Service Contract/Operational Service Contract/Turnkey contracts.
Applicability to Micro-Purchases

Micro-purchases are defined as those purchases under $2,500. These requirements do not apply to micro-purchases.

Flow Down

The Lobbying requirements mandate the maximum flow down, pursuant to Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352(b)(5) and 49 C.F.R. Part 19, Appendix A, Section 7.

Mandatory Clause/Language

Clause and specific language therein are mandated by 49 CFR Part 19, Appendix A.

Modifications have been made to the Clause pursuant to Section 10 of the Lobbying Disclosure Act of 1995, P.L. 104-65 [to be codified at 2 U.S.C. § 1601, et seq.]


Language in Lobbying Certification is mandated by 49 CFR Part 19, Appendix A, Section 7, which provides that contractors file the certification required by 49 CFR Part 20, Appendix A.

Modifications have been made to the Lobbying Certification pursuant to Section 10 of the Lobbying Disclosure Act of 1995.


APPENDIX A, 49 CFR PART 20--CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

(To be submitted with each bid or offer exceeding $150,000)

The undersigned [Contractor] certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)]

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.
This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $150,000 for each such failure.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $150,000 for each such expenditure or failure.]

The Contractor, __________________________, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. A 3801, et seq., apply to this certification and disclosure, if any.

_____________________________ Signature of Contractor's Authorized Official

_____________________________ Name and Title of Contractor's Authorized Official

_____________________________ Date

7. Access to Records and Reports
49 U.S.C. 5325
18 CFR 18.36 (i)
49 CFR 633.17

Applicability to Contracts
Reference Chart "Requirements for Access to Records and Reports by Type of Contracts"

Applicability to Micro-Purchases
Micro-purchases are defined as those purchases under $2,500. These requirements do not apply to micro-purchases.

Flow Down
FTA does not require the inclusion of these requirements in subcontracts.

Model Clause/Language
The specified language is not mandated by the statutes or regulations referenced, but the language provided paraphrases the statutory or regulatory language.

The specified language is not mandated by the statutes or regulations referenced, but the language provided paraphrases the statutory or regulatory language.

Access to Records - The following access to records requirements apply to this Contract:

1. Where the Purchaser is not a State but a local government and is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 C.F.R. 18.36(i); the Contractor agrees to provide the Purchaser, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 C.F.R. 633.17 to provide the FTA Administrator or his authorized representatives including any PMO Contractor access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(q), which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.

2. Where the Purchaser is a State and is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 C.F.R. 633.17, Contractor agrees to provide the Purchaser, the FTA Administrator or his authorized representatives, including any PMO Contractor, access to the Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(q), which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311. By definition, a major capital project excludes contracts of less than the simplified acquisition threshold currently set at $150,000.

3. Where the Purchaser enters into a negotiated contract for other than a small purchase or under the simplified acquisition threshold and is an institution of higher education, a hospital or other non-profit organization and
is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 C.F.R. 19.48, Contractor agrees to provide the Purchaser, FTA Administrator, the Comptroller General of the United States or any of their duly authorized representatives with access to any books, documents, papers and record of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions.

4. Where any Purchaser which is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 U.S.C. 5325(a) enters into a contract for a capital project or improvement (defined at 49 U.S.C. 5302(a)(1)) through other than competitive bidding, the Contractor shall make available records related to the contract to the Purchaser, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.

5. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

6. The Contractor agrees to maintain all books, records, accounts and reports required under this contract for a period of not less than three years after the date of termination or expiration of this contract, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case Contractor agrees to maintain same until the Purchaser, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. Reference 49 CFR 18.39(i)(11).

7. FTA does not require the inclusion of these requirements in subcontracts.

Requirements for Access to Records and Reports by Types of Contract

<table>
<thead>
<tr>
<th>Contract Characteristics</th>
<th>Contract</th>
<th>Operational Service Contract</th>
<th>Turnkey</th>
<th>Construction</th>
<th>Architectural Engineering</th>
<th>Acquisition of Rolling Stock</th>
<th>Professional Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. State Grantees</td>
<td>a. Contracts below SAT ($150,000)</td>
<td>None</td>
<td>Those imposed on state pass thru to Contractor</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>b. Contracts above $150,000/Capital Projects</td>
<td>None unless non-competitive award</td>
<td>Those imposed on state pass thru to Contractor</td>
<td>Yes, if non-competitive award</td>
<td>None unless non-competitive award</td>
<td>None unless non-competitive award</td>
<td>None unless non-competitive award</td>
</tr>
<tr>
<td>II. Non State Grantees</td>
<td>a. Contracts below SAT ($150,000)</td>
<td>Yes³</td>
<td>Those imposed on non-state Grantee pass thru to Contractor</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>b. Contracts above $150,000/Capital Projects</td>
<td>Yes²</td>
<td>Those imposed on non-state Grantee pass thru to Contractor</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Sources of Authority

1. 49 USC 5325 (a)
2. 49 CFR 633.17
3. 18 CFR 18.36 (i)

8. Federal Changes

49 CFR Part 18
Applicability to Contracts
The Federal Changes requirement applies to all contracts.

Applicability to Micro-Purchases
Micro-purchases are defined as those purchases under $2,500. These requirements do not apply to micro-purchases.

Flow Down
The Federal Changes requirement flows down appropriately to each applicable changed requirement.

Model Clause/Language
No specific language is mandated. The following language has been developed by FTA.

Federal Changes - Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between Purchaser and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor’s failure to so comply shall constitute a material breach of this contract.

9. CLEAN AIR
42 U.S.C. 7401 et seq
40 CFR 15.61
49 CFR Part 18

Applicability to Contracts
The Clean Air requirements apply to all contracts exceeding $150,000, including indefinite quantities where the amount is expected to exceed $150,000 in any year.

Flow Down
The Clean Air requirements flow down to all subcontracts which exceed $150,000.

Model Clauses/Language
No specific language is required. FTA has proposed the following language.

Clean Air - (1) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

(2) The Contractor also agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FTA.

10. Recycled Products
42 U.S.C. 6962
40 CFR Part 247
Executive Order 12873

Applicability to Contracts
The Recycled Products requirements apply to all contracts for items designated by the EPA, when the purchaser or contractor procures $10,000 or more of one of these items during the fiscal year, or has procured $10,000 or more of such items in the previous fiscal year, using Federal funds. New requirements for "recovered materials" will become effective May 1, 1996. These new regulations apply to all procurement actions involving items designated by the EPA, where the procuring agency purchases $10,000 or more of one of these items in a fiscal year, or when the cost of such items purchased during the previous fiscal year was $10,000.

Applicability to Micro-Purchases
Micro-purchases are defined as those purchases under $2,500. These requirements do not apply to micro-purchases.
Flow Down
These requirements flow down to all to all contractor and subcontractor tiers.

Model Clause/Language
No specific clause is mandated, but FTA has developed the following language.

Recovered Materials - The contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

11. No Government Obligation to Third Parties

Applicability to Contracts
Applicable to all contracts.

Applicability to Micro-Purchases
Micro-purchases are defined as those purchases under $2,500. These requirements do not apply to micro-purchases.

Flow Down
Not required by statute or regulation for either primary contractors or subcontractors, this concept should flow down to all levels to clarify, to all parties to the contract, that the Federal Government does not have contractual liability to third parties, absent specific written consent.

Model Clause/Language
While no specific language is required, FTA has developed the following language.

No Obligation by the Federal Government.

1. The Purchaser and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the Purchaser, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

2. The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

12. Program Fraud and False or Fraudulent Statements and Related Acts

31 U.S.C. 3801 et seq.
49 U.S.C. 5307

Applicability to Contracts
These requirements are applicable to all contracts.

Applicability to Micro-Purchases
Micro-purchases are defined as those purchases under $2,500. These requirements do not apply to micro-purchases.

Flow Down
These requirements flow down to contractors and subcontractors who make, present, or submit covered claims and statements.

Model Clause/Language
These requirements have no specified language, so FTA proffers the following language.
Program Fraud and False or Fraudulent Statements or Related Acts.

1. The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

2. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(a)(1) on the Contractor, to the extent the Federal Government deems appropriate.

3. The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

13. Termination
49 U.S.C.Part 18
FTA Circular 4220.1F

Applicability to Contracts

All contracts (with the exception of contracts with nonprofit organizations and institutions of higher education) in excess of $10,000 shall contain suitable provisions for termination by the grantee including the manner by which it will be effected and the basis for settlement. (For contracts with nonprofit organizations and institutions of higher education the threshold is $150,000.) In addition, such contracts shall describe conditions under which the contract may be terminated for default as well as conditions where the contract may be terminated because of circumstances beyond the control of the contractor.

Flow Down

The termination requirements flow down to all contracts in excess of $10,000, with the exception of contracts with nonprofit organizations and institutions of higher learning.

Model Clause/Language

FTA does not prescribe the form or content of such clauses. The following are suggestions of clauses to be used in different types of contracts:

1. Termination for Convenience (General Provision) The (Recipient) may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in the Government's best interest. The Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to (Recipient) to be paid the Contractor. If the Contractor has any property in its possession belonging to the (Recipient), the Contractor will account for the same, and dispose of it in the manner the (Recipient) directs.

2. Termination for Default [Breach or Cause] (General Provision) If the Contractor does not deliver supplies in accordance with the contract delivery schedule, or, if the contract is for services, the Contractor fails to perform in the manner called for in the contract, or if the Contractor fails to comply with any other provisions of the contract, the (Recipient) may terminate this contract for default. Termination shall be effected by serving a notice of termination on the contractor setting forth the manner in which the Contractor is in default. The contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner of performance set forth in the contract.
If it is later determined by the (Recipient) that the Contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of the Contractor, the (Recipient), after setting up a new delivery of performance schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

3. **Opportunity to Cure (General Provision)** The (Recipient) in its sole discretion may, in the case of a termination for breach or default, allow the Contractor [an appropriately short period of time] in which to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and other appropriate conditions.

If Contractor fails to remedy to (Recipient)'s satisfaction the breach or default of any of the terms, covenants, or conditions of this Contract within [ten (10) days] after receipt by Contractor of written notice from (Recipient) setting forth the nature of said breach or default, (Recipient) shall have the right to terminate the Contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude (Recipient) from also pursuing all available remedies against Contractor and its sureties for said breach or default.

4. **Waiver of Remedies for any Breach** In the event that (Recipient) elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this Contract, such waiver by (Recipient) shall not limit (Recipient)'s remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.

5. **Termination for Convenience (Professional or Transit Service Contracts)** The (Recipient), by written notice, may terminate this contract, in whole or in part, when it is in the Government's interest. If this contract is terminated, the Recipient shall be liable only for payment under the payment provisions of this contract for services rendered before the effective date of termination.

6. **Termination for Default (Supplies and Service)** If the Contractor fails to deliver supplies or to perform the services within the time specified in this contract or any extension or if the Contractor fails to comply with any other provisions of this contract, the (Recipient) may terminate this contract for default. The (Recipient) shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. The Contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner or performance set forth in this contract.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Recipient.

7. **Termination for Default (Transportation Services)** If the Contractor fails to pick up the commodities or to perform the services, including delivery services, within the time specified in this contract or any extension or if the Contractor fails to comply with any other provisions of this contract, the (Recipient) may terminate this contract for default. The (Recipient) shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. The Contractor will only be paid the contract price for services performed in accordance with the manner of performance set forth in this contract.

If this contract is terminated while the Contractor has possession of Recipient goods, the Contractor shall, upon direction of the (Recipient), protect and preserve the goods until surrendered to the Recipient or its agent. The Contractor and (Recipient) shall agree on payment for the preservation and protection of goods. Failure to agree on an amount will be resolved under the Dispute clause.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the (Recipient).

8. **Termination for Default (Construction)** If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will assure its completion within the time specified in this contract or any extension or fails to complete the work within this time, or if the Contractor fails to comply with any other provisions of this contract, the (Recipient) may terminate this contract for default. The (Recipient) shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. In this event, the Recipient may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Recipient resulting from the Contractor's refusal or failure to complete the work within specified time, whether or not the Contractor's right to proceed
with the work is terminated. This liability includes any increased costs incurred by the Recipient in completing the work.

The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause if:

1. the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include: acts of God, acts of the Recipient, acts of another Contractor in the performance of a contract with the Recipient, epidemics, quarantine restrictions, strikes, freight embargoes; and

2. the contractor, within [10] days from the beginning of any delay, notifies the (Recipient) in writing of the causes of delay. If in the judgment of the (Recipient), the delay is excusable, the time for completing the work shall be extended. The judgment of the (Recipient) shall be final and conclusive on the parties, but subject to appeal under the Disputes clauses.

If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Recipient.

9. Termination for Convenience or Default (Architect and Engineering) The (Recipient) may terminate this contract in whole or in part, for the Recipient's convenience or because of the failure of the Contractor to fulfill the contract obligations. The (Recipient) shall terminate by delivering to the Contractor a Notice of Termination specifying the nature, extent, and effective date of the termination. Upon receipt of the notice, the Contractor shall (1) immediately discontinue all services affected (unless the notice directs otherwise), and (2) deliver to the Contracting Officer all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this contract, whether completed or in process.

If the termination is for the convenience of the Recipient, the Contracting Officer shall make an equitable adjustment in the contract price but shall allow no anticipated profit on unperformed services.

If the termination is for failure of the Contractor to fulfill the contract obligations, the Recipient may complete the work by contact or otherwise and the Contractor shall be liable for any additional cost incurred by the Recipient.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Recipient.

10. Termination for Convenience of Default (Cost-Type Contracts) The (Recipient) may terminate this contract, or any portion of it, by serving a notice or termination on the Contractor. The notice shall state whether the termination is for convenience of the (Recipient) or for the default of the Contractor. If the termination is for default, the notice shall state the manner in which the contractor has failed to perform the requirements of the contract. The Contractor shall account for any property in its possession paid for from funds received from the (Recipient), or property supplied to the Contractor by the (Recipient). If the termination is for default, the (Recipient) may fix the fee, if the contract provides for a fee, to be paid the contractor in proportion to the value, if any, of work performed up to the time of termination. The Contractor shall promptly submit its termination claim to the (Recipient) and the parties shall negotiate the termination settlement to be paid the Contractor.

If the termination is for the convenience of the (Recipient), the Contractor shall be paid its contract close-out costs, and a fee, if the contract provided for payment of a fee, in proportion to the work performed up to the time of termination.

If, after serving a notice of termination for default, the (Recipient) determines that the Contractor has an excusable reason for not performing, such as strike, fire, flood, events which are not the fault of and are beyond the control of the contractor, the (Recipient), after setting up a new work schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

14. Government-Wide Debarment and Suspension (Nonprocurement)

49 CFR Part 29
Executive Order 12549
Background and Applicability


The provisions of Part 29 apply to all grantee contracts and subcontracts at any level expected to equal or exceed $25,000 as well as any contract or subcontract (at any level) for Federally required auditing services. 49 CFR 29.220(b). This represents a change from prior practice in that the dollar threshold for application of these rules has been lowered from $100,000 to $25,000. These are contracts and subcontracts referred to in the regulation as “covered transactions.”

Grantees, contractors, and subcontractors (at any level) that enter into covered transactions are required to verify that the entity (as well as its principals and affiliates) they propose to contract or subcontract with is not excluded or disqualified. They do this by (a) Checking the Excluded Parties List System, (b) Collecting a certification from that person, or (c) Adding a clause or condition to the contract or subcontract. This represents a change from prior practice in that certification is still acceptable but is no longer required. 49 CFR 29.300.

Grantees, contractors, and subcontractors who enter into covered transactions also must require the entities they contract with to comply with 49 CFR 29, subpart C and include this requirement in their own subsequent covered transactions (i.e., the requirement flows down to subcontracts at all levels).

Clause Language

The following clause language is suggested, not mandatory. It incorporates the optional method of verifying that contractors are not excluded or disqualified by certification.

Suspension and Debarment

This contract is a covered transaction for purposes of 49 CFR Part 29. As such, the contractor is required to verify that none of the contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

The contractor is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.

By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by {insert agency name}. If it is later determined that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to {insert agency name}, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The bidder or proposer agrees to comply with the requirements of 49 CFR 29, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

15. Civil Rights Requirements

29 CFR Part 1630, 41 CFR Parts 60 et seq.

Applicability to Contracts

The Civil Rights Requirements apply to all contracts.

Applicability to Micro-Purchases

Micro-purchases are defined as those purchases under $2,500. These requirements do not apply to micro-purchases.

Flow Down

The Civil Rights requirements flow down to all third party contractors and their contracts at every tier.
Model Clause/Language

The following clause was predicated on language contained at 49 CFR Part 19, Appendix A, but FTA has shortened the lengthy text.

Civil Rights - The following requirements apply to the underlying contract:

1. **Nondiscrimination** - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 305 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

2. **Equal Employment Opportunity** - The following equal employment opportunity requirements apply to the underlying contract:
   
   1. **Race, Color, Creed, National Origin, Sex** - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
   
   2. **Age** - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. §§ 623 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
   
   3. **Disabilities** - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

   3. The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

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16. Breaches and Dispute Resolution

49 CFR Part 18

FTA Circular 4220.1F

Applicability to Contracts

All contracts in excess of $150,000 shall contain provisions or conditions which will allow for administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such
sanctions and penalties as may be appropriate. This may include provisions for bonding, penalties for late or inadequate performance, retained earnings, liquidated damages or other appropriate measures.

**Flow Down**

The Breaches and Dispute Resolutions requirements flow down to all tiers.

**Model Clauses/Language**

FTA does not prescribe the form or content of such provisions. What provisions are developed will depend on the circumstances and the type of contract. Recipients should consult legal counsel in developing appropriate clauses. The following clauses are examples of provisions from various FTA third party contracts.

Disputes - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the authorized representative of (Recipient)'s [title of employee]. This decision shall be final and conclusive unless within [ten (10)] days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the [title of employee]. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the [title of employee] shall be binding upon the Contractor and the Contractor shall abide by the decision.

Performance During Dispute - Unless otherwise directed by (Recipient), Contractor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefor shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the (Recipient) and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which the (Recipient) is located.

Rights and Remedies - The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the (Recipient), (Architect) or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

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17. **Disadvantaged Business Enterprise (DBE)**

**49 CFR Part 26**

**Background and Applicability**

The newest version on the Department of Transportation’s Disadvantaged Business Enterprise (DBE) program became effective July 16, 2003. The rule provides guidance to grantees on the use of overall and contract goals, requirement to include DBE provisions in subcontracts, evaluating DBE participation where specific contract goals have been set, reporting requirements, and replacement of DBE subcontracts. Additionally, the DBE program dictates payment terms and conditions (including limitations on retention) applicable to all subcontractors regardless of whether they are DBE firms or not.

The DBE program applies to all DOT-assisted contracting activities. A formal clause such as that below must be included in all contracts above the micro-purchase level. The requirements of clause subsection b flow down to subcontracts.

A substantial change to the payment provisions in this newest version of Part 26 concerns retention (see section 26.29). Grantee choices concerning retention should be reflected in the language choices in clause subsection d.

**Clause Language**

The following clause language is suggested, not mandatory. It incorporates the payment terms and conditions applicable to all subcontractors based in Part 26 as well as those related only to DBE subcontractors. The suggested language
allows for the options available to grantees concerning retainage, specific contract goals, and evaluation of DBE subcontracting participation when specific contract goals have been established.

**Disadvantaged Business Enterprises**

1. This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. The agency's overall goal for DBE participation is 1%. A separate contract goal has not been established for this procurement.

2. The contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this DOT-assisted contract. Failure by the contractor to carry out these requirements is a material breach of this contact, which may result in the termination of this contract or such other remedy as [insert agency name] deems appropriate. Each subcontract the contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).

3. The prime contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 15 days after the contractor's receipt of payment for that work from CITY OF TULSA. The prime contractor agrees further to return any retainage payments to those subcontractors within 20 days after the subcontractor's work related to this contract is satisfactorily completed. Should payment not be rendered in a timely manner, CITY OF TULSA shall hold an informal hearing, where the contractor and subcontractor, meet with representatives from CITY OF TULSA. After hearing from both parties, a decision will be rendered within five days, detailing the consequences/sanctions, which shall be consistent with the non-compliant issue, which could, if warranted, include termination for default or convenience. The contractor officer shall work with the DBELO and Administrator of Grants and Procurement, and other representatives as necessary. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of CITY OF TULSA. This clause applies to both DBE and non-DBE subcontractors.

4. The contractor must promptly notify CITY OF TULSA, whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of CITY OF TULSA.

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18. Incorporation of Federal Transit Administration (FTA) Terms

**FTA Circular 4220.1F**

**Applicability to Contracts**

The incorporation of FTA terms applies to all contracts.

**Applicability to Micro-Purchases**

Micro-purchases are defined as those purchases under $2,500. These requirements do not apply to micro-purchases.

**Flow Down**

The incorporation of FTA terms has unlimited flow down.

**Model Clause/Language**

FTA has developed the following incorporation of terms language:

Incorporation of Federal Transit Administration (FTA) Terms - The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any (name of grantee) requests which would cause (name of grantee) to be in violation of the FTA terms and conditions.
19. Special Notification Requirements for States
To the extent required by Federal law, the State agrees that, in administering any Federal assistance Program or Project supported by the underlying Grant Agreement or Cooperative Agreement, any request for proposals, solicitation, grant application, form, notification, press release, or other publication involving the distribution of Federal assistance for the Program or the Project shall indicate that FTA is the Federal agency that is providing the Federal assistance, the Catalog of Federal Domestic Assistance Number of the program from which the Federal assistance is authorized, as applicable, and the amount provided.

20. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

29 C.F.R. § 5 (1999)
29 C.F.R. § 1926 (1998)

Applicability to Contracts
Section 102 of the Act, which deals with overtime requirements, applies to:

- all construction contracts in excess of $2,000 and;

- all turnkey, rolling stock and operational contracts (excluding contracts for transportation services) in excess of $2,500.

(The dollar threshold for this requirement is contained in the current regulation 29 C.F.R. § 5.5(a).)

Section 107 of the Act which deals with OSHA requirements applies to construction contracts in excess of $2,000 only. The requirements of this section do not apply to contracts or subcontracts for the purchase of supplies or materials or articles normally available on the open market.

Flow Down
Applies to third party contractors and subcontractors.

Model Clauses/Language
Pursuant to Section 102 (Overtime):

(These clauses are specifically mandated under DOL regulation 29 C.F.R. § 5.5 and when preparing a construction contract in excess of $2,000 these clauses should be used in conjunction with the Davis-Bacon Act clauses as discussed previously. For nonconstruction contracts, this is the only section required along with the payroll section.)

1. Overtime requirements - No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages - In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set
forth in paragraph (1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(3) **Withholding for unpaid wages and liquidated damages** - The (write in the name of the grantee or recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(4) **Subcontracts** - The contractor or subcontractor shall insert in any subcontracts the clauses set forth in this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in this section.

(Section 102 nonconstruction contracts should also have the following provision:)

(5) **Payrolls and basic records** - (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

**Section 107 (OSHA):**

(This section is applicable to construction contracts only)

**Contract Work Hours and Safety Standards Act** - (i) The Contractor agrees to comply with section 107 of the Contract Work Hours and Safety Standards Act, 40 U.S.C. section 333, and applicable OSHA regulations, "Safety and Health Regulations for Construction" 29 C.F.R. Part 1926. Among other things, the Contractor agrees that it will not require any laborer or mechanic to work in unsanitary, hazardous, or dangerous surroundings or working conditions.

(ii) **Subcontracts** - The Contractor also agrees to include the requirements of this section in each subcontract. The term "subcontract" under this section is considered to refer to a person who agrees to perform any part of the labor or material requirements of a contract for construction, alteration or repair.
A person who undertakes to perform a portion of a contract involving the furnishing of supplies or materials will be considered a "subcontractor" under this section if the work in question involves the performance of construction work and is to be performed: (1) directly on or near the construction site, or (2) by the employer for the specific project on a customized basis. Thus, a supplier of materials which will become an integral part of the construction is a "subcontractor" if the supplier fabricates or assembles the goods or materials in question specifically for the construction project and the work involved may be said to be construction activity. If the goods or materials in question are ordinarily sold to other customers from regular inventory, the supplier is not a "subcontractor." The requirements of this section do not apply to contracts or subcontracts for the purchase of supplies or materials or articles normally available on the open market.

21. BONDING REQUIREMENTS

Applicability to Contracts
For those construction or facility improvement contracts or subcontracts exceeding $100,000, FTA may accept the bonding policy and requirements of the recipient, provided that they meet the minimum requirements for construction contracts as follows: a. A bid guarantee from each bidder equivalent to five (5) percent of the bid price. The "bid guarantees" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified. b. A performance bond on the part to the Contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract. c. A payment bond on the part of the contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment, as required by law, of all persons supplying labor and material in the execution of the work provided for in the contract. Payment bond amounts required from Contractors are as follows: (1) 50% of the contract price if the contract price is not more than $1 million; (2) 40% of the contract price if the contract price is more than $1 million but not more than $5 million; or (3) $2.5 million if the contract price is more than $5 million. d. A cash deposit, certified check or other negotiable instrument may be accepted by a grantee in lieu of performance and payment bonds, provided the grantee has established a procedure to assure that the interest of FTA is adequately protected. An irrevocable letter of credit would also satisfy the requirement for a bond.

Flow Down
Bonding requirements flow down to the first tier contractors.

Model Clauses/Language
FTA does not prescribe specific wording to be included in third party contracts. FTA has prepared sample clauses as follows:

Bid Bond Requirements (Construction) (a) Bid Security A Bid Bond must be issued by a fully qualified surety company acceptable to Metropolitan Tulsa Transit Authority and listed as a company currently authorized under 31 CFR, Part 223 as possessing a Certificate of Authority as described thereunder. (b) Rights Reserved. In submitting this Bid, it is understood and agreed by bidder that the right is reserved by Metropolitan Tulsa Transit Authority to reject any and all bids, or part of any bid, and it is agreed that the Bid may not be withdrawn for a period of [ninety (90)] days subsequent to the opening of bids, without the written consent of Metropolitan Tulsa Transit Authority. It is also understood and agreed that if the undersigned bidder should withdraw any part of all of his bid within [ninety (90)] days after the bid opening without the written consent of Metropolitan Tulsa Transit Authority, shall refuse or be unable to enter into
this Contract, as provided above, or refuse or be unable to furnish adequate and acceptable Performance Bonds and Labor and Material Payments Bonds, as provided above, or refuse or be unable to furnish adequate and acceptable insurance, as provided above, he shall forfeit his bid security to the extent of Metropolitan Tulsa Transit Authority’s damages occasioned by such withdrawal, or refusal, or inability to enter into an agreement, or provide adequate security therefor. It is further understood and agreed that to the extent the defaulting bidder’s Bid Bond, Certified Check, Cashier’s Check, Treasurer’s Check, and/or Official Bank Check (excluding any income generated thereby which has been retained by Metropolitan Tulsa Transit Authority as provided in [Item x "Bid Security" of the Instructions to Bidders]) shall prove inadequate to fully recoup Metropolitan Tulsa Transit Authority for the damages occasioned by default, then the undersigned bidder agrees to indemnify Metropolitan Tulsa Transit Authority and pay over to Metropolitan Tulsa Transit Authority the difference between the bid security and Metropolitan Tulsa Transit Authority’s total damages, so as to make Metropolitan Tulsa Transit Authority whole. The undersigned understands that any material alteration of any of the above or any of the material contained on this form, other than that requested, will render the bid unresponsive.

Performance and Payment Bonding Requirements (Construction) The Contractor shall be required to obtain performance and payment bonds as follows: (a) Performance bonds. 1. The penal amount of performance bonds shall be 100 percent of the original contract price, unless the Metropolitan Tulsa Transit Authority determines that a lesser amount would be adequate for the protection of the Metropolitan Tulsa Transit Authority. 2. The Metropolitan Tulsa Transit Authority may require additional performance bond protection when a contract price is increased. The increase in protection shall generally equal 100 percent of the increase in contract price. The Metropolitan Tulsa Transit Authority may secure additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.
(b) Payment bonds. 1. The penal amount of the payment bonds shall equal: (i) Fifty percent of the contract price if the contract price is not more than $1 million. (ii) Forty percent of the contract price if the contract price is more than $1 million but not more than $5 million; or (iii) Two and one half million if the contract price is more than $5 million. 2. If the original contract price is $5 million or less, the Metropolitan Tulsa Transit Authority may require additional protection as required by subparagraph 1 if the contract price is increased.

Performance and Payment Bonding Requirements (Non-Construction) The Contractor may be required to obtain performance and payment bonds when necessary to protect the Metropolitan Tulsa Transit Authority’s interest. (a) The following situations may warrant a performance bond: 1. Metropolitan Tulsa Transit Authority property or funds are to be provided to the contractor for use in performing the contract or as partial compensation (as in retention of salvaged material). 2. A contractor sells assets to or merges with another concern, and the Metropolitan Tulsa Transit Authority, after recognizing the latter concern as the successor in interest, desires assurance that it is financially capable. 3. Substantial progress payments are made before delivery of end items starts. 4. Contracts are for dismantling, demolition, or removal of improvements.
(b) When it is determined that a performance bond is required, the Contractor shall be required to obtain performance bonds as follows: 1. The penal amount of performance bonds shall be 100 percent of the original contract price, unless the Metropolitan Tulsa Transit Authority determines that a lesser amount would be adequate for the protection of the Metropolitan Tulsa Transit Authority. 2. The Metropolitan Tulsa Transit Authority may require additional performance bond protection when a contract price is increased. The increase in protection shall generally equal 100 percent of the increase in contract price. The Metropolitan Tulsa Transit Authority may secure additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond. (c) A payment bond is required only when a performance bond is required, and if the use of payment bond is in the Metropolitan Tulsa Transit Authority’s interest. (d) When it is determined that a payment bond is required, the Contractor shall be required to obtain payment bonds as follows: 1. The penal amount of payment bonds shall equal: (i) Fifty percent of the contract price if the contract price is not more than $1 million; (ii) Forty percent of the contract price if the contract price is more than $1 million but not more than $5 million; or (iii) Two and one half million if the contract price is increased.
Advance Payment Bonding Requirements The Contractor may be required to obtain an advance payment bond if the contract contains an advance payment provision and a performance bond is not furnished. The Metropolitan Tulsa Transit Authority shall determine the amount of the advance payment bond necessary to protect the Metropolitan Tulsa Transit Authority.

Patent Infringement Bonding Requirements (Patent Indemnity) The Contractor may be required to obtain a patent indemnity bond if a performance bond is not furnished and the financial responsibility of the Contractor is unknown or doubtful. The Metropolitan Tulsa Transit Authority shall determine the amount of the patent indemnity to protect the Metropolitan Tulsa Transit Authority.

1. Warranty of the Work and Maintenance Bonds 1. The Contractor warrants to Metropolitan Tulsa Transit Authority, the Architect and/or Engineer that all materials and equipment furnished under this Contract will be of highest quality and new unless otherwise specified by Metropolitan Tulsa Transit Authority, free from faults and defects and in conformance with the Contract Documents. All work not so conforming to these standards shall be considered defective. If required by the [Project Manager], the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. 2. The Work furnished must be of first quality and the workmanship must be the best obtainable in the various trades. The Work must be of safe, substantial and durable construction in all respects. The Contractor hereby guarantees the Work against defective materials or faulty workmanship for a minimum period of one (1) year after Final Payment by Metropolitan Tulsa Transit Authority and shall replace or repair any defective materials or equipment or faulty workmanship during the period of the guarantee at no cost to Metropolitan Tulsa Transit Authority. As additional security for these guarantees, the Contractor shall, prior to the release of Final Payment [as provided in Item X below], furnish separate Maintenance (or Guarantee) Bonds in form acceptable to Metropolitan Tulsa Transit Authority written by the same corporate surety that provides the Performance Bond and Labor and Material Payment Bond for this Contract. These bonds shall secure the Contractor’s obligation to replace or repair defective materials and faulty workmanship for a minimum period of one (1) year after Final Payment and shall be written in an amount equal to ONE HUNDRED PERCENT (100%) of the CONTRACT SUM, as adjusted (if at all).

22. Seismic Safety Requirements

42 U.S.C. 7701 et seq. 49
CFR Part 41 Applicability to Contracts
The Seismic Safety requirements apply only to contracts for the construction of new buildings or additions to existing buildings.

Flow Down
The Seismic Safety requirements flow down from FTA recipients and subrecipients to first tier contractors to assure compliance, with the applicable building standards for Seismic Safety, including the work performed by all subcontractors.

Model Clauses/Language
The regulations do not provide suggested language for third-party contract clauses. The following language has been developed by FTA.

Seismic Safety - The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 CFR Part 41 and will certify to compliance to the extent required by the regulation. The contractor also agrees to ensure that all work performed under this contract
including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project.

23. ADA Access

Facilities to be used in public transportation service must comply with the 3.2.16 Americans with Disabilities Act, 42 U.S.C. § 12101 et seq.; DOT regulations, “Transportation Services for Individuals with Disabilities (ADA),” 49 C.F.R. part 37; and Joint Access Board/DOT regulations, “Americans with Disabilities (ADA) Accessibility Specifications for Transportation Vehicles,” 56 C.F.R. part 1192 and 49 C.F.R. part 38. Notably, DOT incorporated by reference into Appendix A of its regulations at 49 C.F.R. part 37 the Access Board’s “Americans with Disabilities Act Accessibility Guidelines” (ADAAG), revised July 2004, which include accessibility guidelines for buildings and facilities. DOT also added specific provisions to Appendix A of 49 C.F.R. part 37 modifying the ADAAG with the result that buildings and facilities must comply with both the ADAAG and the DOT amendments.

24. Davis-Bacon and Copeland anti-Kickback Acts

(1) Minimum wages - (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conforming under paragraph (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) Except with respect to helpers as defined as 29 CFR 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) With respect to helpers as defined in 29 CFR 5.2(n)(4), such a classification prevails in the area in which the work is performed.
(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(v)(A) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

1. The work to be performed by the classification requested is not performed by a classification in the wage determination; and

2. The classification is utilized in the area by the construction industry; and

3. The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination with 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(v) (B) or

(C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(2) **Withholding** - CITY OF TULSA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, CITY OF TULSA may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) **Payrolls and basic records** - (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such record shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to CITY OF TULSA for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5 and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) **Apprentices and trainees** - (i) **Apprentices** - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman's hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) **Trainees** - Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman's hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work.
actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity - The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements - The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts - The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment - A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements - All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards - Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.1(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number Publication Date
0 01/03/2020

SUOK2011-004 04/18/2011

Rates Fringes

Traffic signal installer.......$ 18.04

CARPENTER (Includes Form Work, and Curb Line Formsetting)

Remaining Counties...........$ 13.24
Rogers County.................$ 14.82
Tulsa County..................$ 12.80

CEMENT MASON/CONCRETE FINISHER

Remaining Counties...........$ 13.36
Tulsa County..................$ 13.44

IRONWORKER, REINFORCING...........$ 15.38

IRONWORKER, STRUCTURAL.........$ 14.21

LABORER
Asphalt Raker and Shovelers
Remaining Counties $12.40  1.57
Rogers County $11.76 1.57
Common or General
Creek County $10.95
Remaining Counties $10.70
Rogers County $10.14
Tulsa County $10.84
Wagoner $10.32
Landscape $8.67
Pipe layer $12.35
Power Tool Operator
(Includes Chipping Guns and Hand Held Concrete Saws) $12.89
Traffic Control (Includes Flagger, Setting Up and Moving Cones/Barrels)
Remaining Counties $11.05
Tulsa County $10.94

POWER EQUIPMENT OPERATOR:
Asphalt Paver Screed $12.96
Asphalt Paving Machine $13.95 2.75
Backhoe/Trackhoe
Remaining Counties $15.16
Rogers County $15.11
Tulsa County $15.19
Bobcat/Skid Loader $12.24
Broom $11.97
Bulldozer $14.28
Concrete Paving Machine $14.11
Concrete Saw $11.94
Crane $17.45
Distributor Truck $13.34
Excavator $14.99
Grader/Blade $16.68
Loader (Front End) $13.81
Mechanic $17.46
Milling Machine $14.56
Mixer $14.43
Oiler $15.28
Roller (Asphalt) $12.79
Roller (Dirt Compaction) $11.71
Scraper $13.34
Striping Machine $11.94
Tractor/Box Blade $13.67
Trencher $13.87

TRUCK DRIVER
Dump Truck $13.97
Flatbed Truck $14.69
Lowboy/Float $13.80
Off the Road Truck $13.40
Pickup Truck $12.32
Tandem Axle/Semi Trailer
Remaining Counties $16.36
Rogers County $14.01 0.31
WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "'identifiers'" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "'SU'" or "'UAVG'" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing.
the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on
a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

   Branch of Construction Wage Determinations
   Wage and Hour Division
   U.S. Department of Labor
   200 Constitution Avenue, N.W.
   Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

   Wage and Hour Administrator
   U.S. Department of Labor
   200 Constitution Avenue, N.W.
   Washington, DC 20210

   The request should be accompanied by a full statement of the interested party’s position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

   Administrative Review Board
   U.S. Department of Labor
   200 Constitution Avenue, N.W.
   Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

________________________________________________________________________

END OF GENERAL DECISION
25. ANTI-COLLUSION AFFIDAVIT

This Bid will not be considered unless this form has been fully completed and signed by the Bidder or Bidder's Authorized Agent, and notarized, dated and completed by a Notary Public.

The following affidavit is submitted by or on behalf of the Bidder as a part of this Bid:

The undersigned of lawful age, being first duly sworn on oath, says:

The undersigned is the Bidder or the duly authorized agent of the Bidder submitting the Bid which is attached to this statement, for the purpose of certifying the facts pertaining to the non-existence of collusion among Bidder and between Bidder and City or Trust officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any Contract Agreement pursuant to the Bid to which this statement is attached;

The undersigned is fully aware of the facts and circumstances surrounding the making of the Bid to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such Bid; and

Neither the Bidder nor anyone subject to the Bidder's direction or control has been a party:

to any collusion among Bidder in Restraint of freedom of competition by agreement to Bid at a fixed price or to refrain from Proposing;

to any collusion with any City or Trust official, agent or employee as to quantity, quality or price in the prospective Contract Agreement, or as to any other terms of such prospective Contract Agreement; nor in any discussion between Bidder and any City or Trust official, agent or employee concerning exchange of money or other thing(s) of value for special consideration in the letting of a Contract Agreement.

Name of Individual, Partnership or Corporation

Signature of Bidder or Bidder's Authorized Agent

State of ___________________________)

County of ____________________________

Subscribed and sworn to before me this day of , 2012.

Notary Public ____________________________

Notary Number ____________________________

My Commission expires ____________________________
26. CERTIFICATE OF NON-DISCRIMINATION

In connection with the performance of work under this Contract Agreement, the proposer agrees as follows:

A. The proposer agrees not to discriminate against any employee or applicant for employment because of race, creed, color, sex, age, national origin, ancestry or disability. The proposer shall take affirmative action to ensure that employees are treated without regard to their race, creed, color, sex, age, national origin, ancestry or disability, as defined by the Americans with Disabilities Act of 1990, Section 3(2). Such actions shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer, or pay or other forms of compensation and selection for training, including apprenticeship. The proposer and any Sub-Contractor shall agree to post in a conspicuous place, available to employees and applicants for employment, notices to be provided by the City Clerk of The City of Tulsa setting forth the provisions of this section.

B. In the event of the proposer's non-compliance with this Non-discrimination Clause, the Contract Agreement may be canceled or terminated by the Metropolitan Tulsa Transit Authority (Tulsa Transit) Board of Trustees. The proposer may be declared ineligible by the Board of Trustees for further contracts with Tulsa Transit until satisfactory proof of intent to comply shall be made by the proposer and/or Sub-Contractor(s).

C. The proposer agrees to include the requirements of this Non-Discrimination Certificate in any subcontracts connected with the performance of this Contract Agreement.

I have read the above clause and agree to Proposal by its requirements.

Name of Corporation or Firm

________________________ ________________
Attest (Corporate Seal)

Signature of Proposer or Proposer's Authorized Agent.

________________________

If Proposer's company is not incorporated, no corporate seal is required; however, the following statement must be executed.

State of __________________________ County of __________________________

Subscribed and sworn to before me this ____________ day of _____________, 20___

Notary Public

________________________

Notary Number __________________________

My Commission Expires __________________________

NOTARY SEAL HERE
SPECIFICATIONS
AN ORDINANCE AMENDING TITLE 11, TULSA REVISED ORDINANCES, ENTITLED “PUBLIC WORKS DEPARTMENT” BY AMENDING CHAPTER 10, ENTITLED “STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION” BY AMENDING SECTION 1000 AND SECTION 1001; PROVIDING FOR SEVERABILITY; REPEALING ALL ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH AND ESTABLISHING AN EFFECTIVE DATE.

BE IT ORDAINED BY THE CITY OF TULSA:

Section 1. Amendment of Title 11, Chapter 10. That Title 11, Chapter 10, Tulsa Revised Ordinances, entitled “Standard Specifications for Highway Construction” be and the same is hereby amended and shall recite in its entirety as follows:

“CHAPTER 10. STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION

Section 1000. Adoption of State Standard Specifications.
Section 1001. Additions, Revisions, Deletions and Exceptions.

SECTION 1000. ADOPTION OF STATE STANDARD SPECIFICATIONS.

That certain document, a bound copy and electronic copy of which has been filed in the Office of the City Clerk of the City of Tulsa, being marked and designated as Standard Specifications for Highway Construction, 2019 Edition, as published by the Oklahoma Department of Transportation, is hereby adopted as the standard specifications for public improvement projects for the City of Tulsa with the additions, revisions, deletions and exceptions as set forth in SECTION 1001 of this chapter.

SECTION 1001. ADDITIONS, REVISIONS, DELETIONS AND EXCEPTIONS.

1001.A. The following definitions, listed as numbered in the 2019 Edition of the Standard Specifications for Highway Construction, are hereby revised and amended for all sections of this chapter as follows:

101.03. Abbreviations and Acronyms. In Table 101:1, add the following abbreviations and expressions:

- ADA - American with Disabilities Act, excluding Chapter 500
- ADA – Adjusted Daily Average, when used in Chapter 500
- ADAAG - American with Disability Act Accessibility Guidelines
- COT - City of Tulsa
• PROWAG – Public Rights-of-Way Accessibility Guidelines

101.05. Definitions. Add the following subsections:

• “101.05.CY. City of Tulsa (COT). The City of Tulsa, Oklahoma, a municipal corporation acting by and through its duly authorized officers and agents.”

• “101.05.CZ. Non-Collusive Bidding Certificate. Replace all references to ‘Non-Collusive Bidding Certificate’ with ‘Non-Collusion Affidavit’.”

• “101.05.DA. Qualified Products List (QPL). All references to ‘ODOT Traffic Engineering Division Qualified Products List (QPL)’ or ‘QPL’ shall mean ‘the City of Tulsa, Traffic Engineering Division Approved Products List’.”

• “101.05.DB. State Construction Engineer. The City Engineer of the City of Tulsa or authorized designee.”

101.05.A. Acceptance Date. Delete section.

101.05.V. Commission. Replace definition with “The City of Tulsa, Oklahoma, a municipal corporation acting by and through its duly authorized officers and agents.”

101.05.Y. Contract. Replace definition with “The written agreement between the City of Tulsa and the Contractor setting forth obligations of the parties thereunder, including, but not limited to, the performance of the work, the furnishing of labor and materials, and the basis of payment.

The Contract includes the Notice to Bidders, Proposal, Contract Form, all Contract Bonds, Specifications, Special Specifications, Special Provisions, all Plans, Work Orders and Change Orders that are required to complete the construction of the work in an acceptable manner, including authorized extensions.”

101.05.AG. Department. Replace definition with “The City of Tulsa, Oklahoma, a municipal corporation acting by and through its duly authorized officers and agents.”

101.05.AI. Director. Replace definition with “The Director of the Engineering Services Department or the Director of any successor department which has the responsibility for general engineering services for the City of Tulsa.”

101.05.AL. Engineer. Replace definition with “The City Engineer of the City of Tulsa or authorized designee.”

101.05.AO. FAST Guide. Replace definition and all references to “FAST Guide” with “City of Tulsa Acceptance Sampling/Testing Standard Specifications.”

101.05. AT. Holiday. Replace definition with “Days declared to be holidays for regular Civil Service employees of the City of Tulsa.”

101.05. AV. Inspector. Replace definition with “The City of Tulsa’s authorized representative assigned to inspect the work.”

2
101.05.BF. Materials Division. Replace definition with “The Director of the Engineering Services Department or the Director of any successor department which has the responsibility for general engineering services for the City of Tulsa.”

101.05.BG. Materials Engineer. Replace definition with “The City Engineer of the City of Tulsa or authorized designee.”

101.05.CC. Right-of-Way. Replace definition with “Right-of-Way or ROW shall mean the surface, the airspace above ground, and the area below the surface of any public street, highway, parkway, lane, path, alley, sidewalk, boulevard, drive, bridge, tunnel, stormwater drainage system, easement, park, or similar property in which the City of Tulsa now or hereafter holds a property interest and/or a maintenance responsibility which, consistent with the purposes for which it was granted or dedicated, may be used to install, operate and maintain facilities.”

101.05.CD.(16). Sidewalk/Bicycle Path. Add the following sentence to the existing definition: “Refer to the Revised Ordinances of the City of Tulsa, Title 37 – Tulsa Traffic Code, Chapter 1 and Chapter 10 for definition of bicycle.”

101.05.CH. State. Replace definition with “The City of Tulsa, Oklahoma, a municipal corporation acting by and through its duly authorized officers and agents.”

101.05.CS. Traffic Engineering Division. Replace definition with “The City of Tulsa Traffic Engineering Division or any successor division which has the responsibility for traffic engineering services for the City of Tulsa.”

1001.B. City of Tulsa exceptions and amendments to the following provisions, listed as numbered in the 2019 Edition of the Standard Specifications for Highway Construction, are hereby revised, amended and described as follows:

102.01. Pre-Qualification. Delete text of section, and replace with “The City of Tulsa requires General / Prime Contractors to be Prequalified according to Title 11, Chapter 11 of the Revised Ordinances of the City of Tulsa.”

102.04. Refusal of Proposals. At the end of the bulleted list, add the following bulleted list item: “The bidder has failed to comply with Small Business Enterprise requirements of a previous City of Tulsa contract.”

102.06. Examination of Plans, Specifications, Special Provisions, and the Work Site. Replace the fourth paragraph with “The City of Tulsa may have boring logs and subsurface reports used in determining design criteria. Bidders may request to inspect these documents, relevant to the currently advertised project, by contacting the Contract Administrator at the following address during normal business hours:

City of Tulsa
Engineering Services Department
102.08. Nonresponsive Proposals. At the end of the bulleted list, add the following bulleted statement: “The bidder does not properly comply with Small Business Enterprise requirements in accordance with the Proposal Forms.”

102.10. Delivery of Proposal. Delete text of section, and replace with the following:

“Each bid Proposal shall be completed electronically on the electronic media provided, then printed, signed and submitted along with the electronic media and the complete bound copy of the contract documents or as instructed in the Notice to Bidders. In the event of a discrepancy between the pricing on the electronic media and the hard copy of a Proposal, the hard copy pricing will govern. If an electronic media is not provided, and the bid Proposal is manual, the bid Proposal shall be submitted in ink. The written words shall govern over the figures. Erroneous entries shall be lined out, initialed by the bidder, and the correct entry inserted. The unit price bid must cover all expense for furnishing the labor, materials, tools, equipment, and apparatus of every description to construct, erect, and furnish all work required by and in conformance with the Plans and Specifications.

Each bid shall be enclosed in a sealed envelope addressed to

City Clerk’s Office
The City of Tulsa
One Technology Center
175 E. 2nd Street, Suite 260
Tulsa, Oklahoma 74103

or as otherwise instructed in the Notice to Bidders, and identified on the outside with the words:

‘PROJECT NO. __________

Pre-qualification Certificate Number __________’

All addenda to the contract documents shall accompany the bid when submitted.

Any bid received more than ninety-six (96) hours excluding Saturdays, Sundays and holidays before the time set for the opening of bids, or any bid received after the time set for opening of bids, shall be considered “non-responsive” and shall be returned unopened to the bidder.”

102.13. Public Opening of Proposals. Delete text of section, and replace with “Proposals shall be publicly opened and read on the date and at the hour and place set forth in the advertisement and Notice to Bidders in the manner established by the City of Tulsa.”


• Replace the Non-Collusion Bidding Certification form with the following City of Tulsa Non-Collusion Affidavit form:
In the fourth paragraph, revise the phrase proceeding the bulleted list to recite: “The following do not constitute collusion within the scope of the Non-Collusion Affidavit.”

103.07. Execution of Contract. Revise the first paragraph as follows:

- Revise the first sentence to recite “The Contract shall be signed in black or blue ink by the individual, all members/partners of a general partnership or joint venture, a general partner of a limited partnership, a duly authorized officer of the corporation, or a duly authorized manager, managing member or authorized officer of the limited liability company, to whom the Contract was awarded.
- In the last sentence delete “The Department will execute the Contract”, and replace with “The Department will endeavor to execute the Contract, in proper form.”.
103.08. Approval of Contract. Delete text of section, and replace with “The Contract shall not be binding upon the City of Tulsa until it has been executed and approved in the manner set forth in the Tulsa City Charter.”

104.01. Purpose of Contract. After the first two (2) sentences, delete the rest of the section.

104.07. Maintenance of Traffic. Revise the first sentence to recite "Keep all roads, sidewalks, and bicycle paths open to all traffic as shown on the plans."

105.17. Project Completion and Acceptance. At the beginning of the section add, “This section does not apply to Infrastructure Development Projects (IDPs). For IDPs, refer to Title 35 of the Revised Ordinances of the City of Tulsa.”

105.17.B. Project Completion. In the first sentence of the last paragraph, replace “The Resident Engineer will” with “The Resident Engineer may”.

105.17.C. Final Acceptance. Delete text of section, and replace with “Final Acceptance is the date on which the Request for Action (RFA) for final payment has been signed by the Mayor of the City of Tulsa.”

106.01.A. Material Acceptance. At the end of this section, add the following paragraph: “For conflicts among ODOT Standard Specifications, ODOT Standard Materials Test Methods, and City of Tulsa Acceptance Sampling/Testing Standard Specifications, the City of Tulsa Acceptance Sampling/Testing Standard Specifications shall take precedence.”

106.01.B. Buy America. Delete Section.

106.04.D. Distribution of Certifications. Delete text of section, and replace with “The Contractor shall submit certifications to the Engineer with another copy mailed to:

Field Engineering
City of Tulsa
Engineering Services Department
2317 S Jackson Ave
Tulsa, OK 74107”

106.05. Plant Inspection. In this section, replace all references to “Oklahoma City” with “Tulsa.”

106.11. Guarantees and Warranties. In the first paragraph replace “six months” with “twelve months” and “six-month” with “twelve-month”.

107.01. Laws, Rules, and Regulations to be Observed. At the end of this section add the following:

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

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

107.06. Barriers, Barricades, and Warning Signs. Before the first paragraph, add “In this section, the term “traffic” includes vehicular, pedestrian and bicycle traffic.”


107.19. Regulated Floodways. At the end of the section, add “The Contractor shall also follow the requirements of Title 11A of the Revised Ordinances of the City of Tulsa.”

107.20. Stormwater Management. After the first sentence, add “The Contractor shall also follow the requirements of Title 11A of the Revised Ordinances of the City of Tulsa.”

108.01. Subletting of Contract. Delete the last sentence of the first paragraph.

108.02. Notice to Proceed and Preconstruction Conference. Delete the first sentence in the second paragraph, and replace with “After the Contractor and Resident Engineer hold a preconstruction conference, the Contractor shall receive a Notice to Proceed before the start of construction.”

108.07.B.(1) Extensions for Adverse Weather. After the first sentence in the second paragraph, add “Extensions of Contract Time will not be granted if conditions exist such that the Contractor could work at least 4 hours.”


108.08. Incentive/Disincentive for Early/Late Completion. Delete section.

108.09. Failure to Complete on Time.
• In the first sentence, delete “in accordance with Table 108.1, ‘Schedule of Liquidated Damages.’”
• Delete Table 108.1.

• In first paragraph, delete the last two sentences, and replace with the following:

“‘The Department will determine the maximum allowable rate as listed in the most current edition of the Heavy Construction Costs with RSMeans data, published by The Gordian
Group. The Department will calculate the hourly rental rate in accordance with the following equation:

\[ H = \left( \frac{M \times R}{176} \right) + O \]

Where

- \( H = \) Hourly rental rate,
- \( M = \) Monthly rental rate,
- \( R = \) City cost index / 100, and
- \( O = \) Hourly operating cost.

- In the second paragraph, delete the last two sentences.

109.04.B.(4)(f). Employee Fringe Benefits. Delete text of section, and replace with “The City of Tulsa will not pay for the additional costs of employee fringe benefits incurred by the Contractor for labor during the period the disputed work was in progress.”

109.06. Progress Payments. Revise the first sentence of the second paragraph to recite “The Resident Engineer will make monthly progressive estimates.”

109.08. Final Payment. Delete last paragraph, and replace with “If the Contractor does not sign and return the Final Estimate within 90 days of receipt, the Engineer may start action to administratively close the project.”


201.04.A. Clearing. Delete the fourth sentence of the first paragraph, and replace with “Remove branches that overhang the roadway to at least 20 ft [6 m] above the road surface and at least 35 ft [11 m] above the road surface at traffic signals.”

201.06. Basis of Payment. In this section, delete all references to “Lump Sum”, and replace with “Square Yard [Square Meter]”.

202.04. Construction Methods. In the second paragraph delete, “If the contract requires ground disturbance greater than one acre total.”

202.04.D.(2). Mandatory Sources Designated on the Plans. Delete sentence, and replace with “If the Plans show the source of selective subgrade topping, excavate the material at the specified source, haul to the specified location, and place.”

202.05.A. Unclassified Excavation. Delete the second sentence of the first paragraph.

209.04. Construction Methods. At the end of the second paragraph, add the following: “Clean inlet and outlet channels within the right-of-way.”
220.04.C. Contractor Responsibilities for SWPPP. In the first sentence of the second paragraph, replace “recommended” with “required”.

220.04.H.(3). Earthwork Operations. Delete first paragraph, and replace with “Protect excavation or embankment slopes as construction progresses with placement of temporary (e.g. seeding, mulching, soil retention blankets, or other approved soil stability), or permanent (e.g. seeding, sprigging, or sodding) erosion control measures. Obtain approval from the Resident Engineer in the preconstruction schedule for any increase or decrease in the amount of the area exposed by construction operations. No exposed area shall remain unprotected without being stabilized. Install temporary or permanent erosion or sediment control measures on excavation or embankment slopes as work progresses in vertical increments of not more than 10 ft [3 m] unless otherwise directed by the Resident Engineer.”

220.05. Method of Measurement. In the bulleted list, delete the sixth bulleted item.

221.01. Description. In the last sentence, replace “OOPDES” with “OPDES”.

221.02. D. Temporary Sediment Filter. Revise the first sentence to recite “Provide fiber log for Type I-A and I-B sediment filter in accordance with Subsection 221.02.H. ‘Temporary Fiber Log.’ Provide material for Type I-C sediment filter in accordance with Subsection 221.02.C. ‘Temporary Silt Fence.’”

228.02. Materials. For the first item listed in the table, delete “Nylon”.

230.01. Description. Delete “Bermuda”.

230.02. Materials. Delete all references to “Bermuda” from this section.

231.04.C.(1). Planting Seasons and Weather Restrictions. In the first sentence of the second paragraph, replace “suspend” with “Suspend”.

317.04.A. Mix Design and Proportioning. In the bulleted list, insert “•” before “Compressive strength at 7 days”.

317.04.F. Acceptance.
   • Delete the first paragraph.
   • At the end of the second paragraph add “Failure to reach strength between 600 psi [4.150 kPa] and 2,000 psi [13,800 kPa] will result in rejection of the work.”

317.06. Basis of Payment. Delete the third and fourth paragraphs and Table 317:1. Replace with the following: “ODOT Acceptance and Strength Pay Factors shall not be used. Failure to meet criteria in Subsection 317.04.F will result in rejection of the work.”

401.04.A.(1). Surface Elevation and Smoothness. Delete paragraph, and replace with “Refer to the City of Tulsa Standard Specifications for Pavement and Bridge Deck Smoothness.”
403.04.A.(2). Seasonal Limitations. Delete paragraph and Table 403:1, and replace with “The Department will evaluate claims for extension of Contract Time in accordance with Subsection 108.07, when temperature and weather limitations in Table 403:2 are not met.”

405.04.G. Spreading and Finishing. In the last paragraph, replace “ODOT Bridge Division” with “Department”.

406.04.F. Weather and Seasonal Limitations. Delete the second paragraph.

410.04.E. Aggregate Application Rate. Delete the third and fourth sentences, and replace with “The Contractor shall overlay the deficient area at no additional cost to the Department.”

410.05. Method of Measurement. Delete text of section, and replace with “The Resident Engineer will measure completed Micro Surfacing by the square yard [square meter].”

410.06. Basis of Payment. Delete all Pay Items and Pay Units in the table and replace with the following Pay Item and Pay Unit: “MICRO SURFACING, Square Yard [Square Meter]”.

411.03.C. Pavers. After the first paragraph add the following paragraph and Table 411.03.C:1. “Pavers shall be capable of placing a minimum paving width in one (1) lift as shown in Table 411.03.C:1. Longitudinal joints in the surface layer shall correspond with the locations indicated in Table 411.03.C:1.”

<table>
<thead>
<tr>
<th>Table 411.03.C:1</th>
<th>Minimum Paving Width</th>
<th>Location of Longitudinal Joints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadway Classification</td>
<td>Minimum Paving Width</td>
<td>Location of Longitudinal Joints</td>
</tr>
<tr>
<td>Arterials</td>
<td>one (1) full lane width</td>
<td>At edges of traffic lanes</td>
</tr>
<tr>
<td>Non-Arterials</td>
<td>one-half (½) road width</td>
<td>At centerline of road</td>
</tr>
<tr>
<td>Trails and bike lanes</td>
<td>full width of trail/bike lane</td>
<td>At edges of trail/bike lane</td>
</tr>
</tbody>
</table>

411.03.F. Material Transfer Vehicle.
- In the fourth paragraph, replace “Bridge Division” with “Department”.
- In the seventh paragraph, replace “500 ton [450 metric ton]” with “100 ton [90 metric ton]”.

411.04. Construction Methods. At the beginning of this section, add the following:

“Prior to paving operations, submit a paving plan indicating the sequence of paving passes, pass widths, pass thicknesses, and requested temporary street closures.

The contractor shall not drive empty or loaded trucks or equipment across newly paved areas for the construction period.”

411.04.D. Control Strip Requirements.
- Delete the first paragraph.
- In the second paragraph, replace “500 ton [450 metric ton]” with “100 ton [90 metric ton]”.
- Delete the last paragraph, and replace with “If the initial asphalt control strip produces failing results, make adjustments to production and placement procedures, and repeat the
test process for a second control strip. If required, create additional asphalt control strips on the shoulder until an acceptable mixture is produced.”

411.04.1. Spreading and Finishing.
- After the second sentence in the fourth paragraph, add “Once paving begins the Contractor should have sufficient trucks available to deliver asphalt materials in a continuous operation.”
- After the fourth paragraph, add the following paragraph: “A leveling or “wedge” course may be required to establish the required cross-slope for the finished overlay. Adequate transitions to side streets and driveways must be provided. Paving shall extend to the returns of all side streets. Special consideration should be given to prevent ponding at side street intersections.”

- Delete the second paragraph, and replace with the following:
  “Ensure longitudinal joints in the surface layer correspond with locations indicated in Table 411.03.C:1.
  Transverse joints shall be kept to a minimum. At a minimum, each lane shall be continuously laid without cold joints either from intersection to intersection or a length of 500 ft.”
- Delete the last sentence in the last paragraph.


- In the second paragraph, delete the first sentence, and replace with “Asphalt density tests for each lot will be performed at random sample locations.”
- Delete Table 411:2 and the last paragraph in the section, and replace with the following:
  “ODOT Pay Adjustments for Lot Density shall not be used. Failure of any sample within the lot to reach density within 92.0 to 97.0 percent of the Maximum Theoretical Density will result in rejection of the entire lot. The Contractor shall remove and replace unacceptable lots at no additional cost to the Department.”

411.04.K.(2).(b). Layers Less Than 1½ in [40 mm] Thick. In the second paragraph, replace “500 yd² [500 m²]” with “400 yd² [330 m²]”.

- In the first paragraph,
  o In the first sentence, delete “and payment”;
  o After the first sentence, add the following: “The Resident Engineer may also consider other characteristics, including but not limited to, pavement smoothness.”
• In the second paragraph, delete the second through the last sentence.
• Delete the fifth through the last paragraph and replace with “ODOT pay factors for density, asphalt cement content, and air voids shall not be used. Failure to reach density of 92.0 to 97.0 percent of the Maximum Theoretical Density, asphalt cement content of +/- 0.40 of job mix formula, air voids greater than 1.5 deviation from target, or specified thickness of asphalt will result in rejection of the entire lot. The Contractor shall remove and replace unacceptable lots at no additional cost to the Department.

411.04.N.(2).b. Resident Engineer’s Acceptance Procedures. Delete the second paragraph, the bulleted list, and Table 411:4; replace with “The Resident Engineer may perform varying amounts of sampling and testing per lot in accordance with the City of Tulsa Acceptance Sampling/Testing Standard Specifications.”

411.06.B(2). Asphalt Binder Price Adjustment (ABPA). Delete the last paragraph, and replace with “ODOT will establish the Monthly Asphalt Binder Price Index each month and post the information to the ODOT website at http://www.okladot.state.ok.us/contractadmin/pdfs/binder-index.pdf.”

414.02. Materials.
• Delete “Fly Ash” from Table.
• At the end of the section, add the following:
  “Fly Ash is not allowed in any concrete mixture unless otherwise specified in the Plans or Special Provisions.”

414.03.B. Placing and Finishing Equipment. After the first sentence, add the following: “If paving is not performed by a slip form paver, a hand vibrator shall be required.”

414.04.R. Acceptance of Pavement. Delete text of section, and replace with the following: “ODOT pay factors shall not be used. Failure to reach the gradation specified, air content of 4.5% to 7.5%, or target strength of the mix design will result in rejection of the entire lot. Failure to provide pavement thickness equal to or greater than what is specified will result in rejection of the entire lot.”


414.06. Basis of Payment. Delete the last sentence in this section.

509.06. Basis of Payment.
• Delete the second through the fifth paragraph and Table 509:7. Replace with the following: “ODOT pay factors for strength and air content shall not be used. Failure to reach the specified strength or the target air content within a deviation of 1.5% will result in rejection of the work. Check any outlying concrete cylinder breaks and air entrainment tests in accordance with ASTM E 178 Table 1, Upper 10% Significance Level.”
• In the sixth paragraph, revise the first sentence to recite “If the concrete is rejected by the Engineer, the Contractor may elect to core the represented concrete at no additional cost to the Department.”

515.04.C. Sampling and Testing of Bridge Decks and Approaches. Delete the first paragraph and bulleted list. Replace with “Refer to City of Tulsa Acceptance Sampling/Testing Standard Specifications for lot size.”

515.04.D.(2). Bridge Decks and Approach Slab Surfaces.
• In the first paragraph, delete the third sentence.
• Delete sections (a), (b) and (c).
• Add the following:
  “The percentage of absorption (using test results from OHD L39 shall be less than or equal to 1.0. The depth of penetration (using test results from OHD L 40) shall be greater than or equal to 0.15 inches. If absorption and penetration requirements are not met, reapply penetrating water repellent at no additional cost to the Department until requirements are met.”

516.02.C. Casings.
• In the first sentence of the third paragraph, add the word “licensed” after “Registered Professional Engineer”.
• In the fourth paragraph, delete the second sentence, and replace with “Use permanent interior casings in accordance with ASTM A760 and AASHTO M36.”

516.04.C.(7). Concrete Acceptance. Delete the second and third sentence. Replace with the following: “ODOT pay factors for concrete strength shall not be used. Failure to reach the specified strength will result in rejection of the work.”

610.04.F. Tactile Warning Device. Delete text of section, and replace with the following:
“Install tactile warning devices in accordance with the manufacturer’s specifications and the City of Tulsa Standard Drawings. Tactile Warning Devices shall consist of Cast-In-Place Tactile Panels in accordance with 733.1, “Tactile Warning Device Material”.

Tactile panels shall be cast into the wet concrete. Surface applied products shall not be allowed. The panels shall extend the full width of the ramp or landing area and shall extend a minimum of two (2) feet in the direction of pedestrian travel. Panels shall be placed perpendicular to the direction of travel unless specifically noted otherwise or approved by the Engineer prior to installation.

All construction shall meet current ADAAG and PROWAG Guidelines.”

611.01. Description. In the first sentence, delete “brick masonry.”.

611.02.A. General.
• Delete “Clay Brick” and “Concrete Brick” from the table of materials.
• In the second paragraph, delete “brick masonry or”.

611.04.B. Clay Brick or Concrete Brick. Delete section.

615. Sanitary Sewer Pipe Conduits. Delete section.

616. Water Pipe and Fittings. Delete section.

623. Guardrail and End Treatments. Revise the section title to recite “Guardrail, End Treatments, and Impact Attenuators”.

623.01. Description.
• In bulleted list, add the item, “Guardrail Impact Attenuators”.
• In the last sentence of the last paragraph, after “Ensure the GETs”, add “and Guardrail Impact Attenuators”.

623.04. Construction Methods. Add the following subsection:

“623.04 H. Guardrail Impact Attenuators

Ensure experienced workers fabricate and install guardrail impact attenuators as shown on the Plans.

Construct guardrail impact attenuators with certified, crash tested hardware. Ensure NCHRP 350 TL-3 certification for substituted hardware and that the product appears on the Traffic Engineering Division’s Qualified Product List (QPL). Obtain the Resident Engineer’s approval of substitutions before installation.”

623.06. Basis of Payment. Add Pay Item “(J) Guardrail Impact Attenuator” with a Pay Unit of “Each”.

624.01. Description. In the bulleted list, add the bulleted item, “Fence, Other (Like Kind)”.

624.02. Materials. In the table, add the Material, “Fence, Other (Like Kind)” with Section or Subsection of “732.10”.

624.06. Basis of Payment. Add Pay Item, “(H) Fence, Other (Like Kind)” with a Pay Unit of “Linear Foot [Meter]”.

642.06. Basis of Payment. In the table, for both Pay Items, delete the Pay Unit of “Lump Sum”, and replace with “Each”.

701.01.B. Cement Substitution. Delete text of section, Table 701:2, and Table 701:3. Replace with “Cement substitutions shall not be used in concrete mixtures.”

701.19.A. General. Controlled Low-Strength Material (CLSM). In the first sentence, delete “fly ash.”.
701.19.B. Mix Design. In the table, delete the Material, “Fly Ash”.

702.01.A. General. In the second paragraph
- Delete the first sentence, and
- In the last sentence, delete “PCC from one source (power plant) and”.

702.01.B. Requirements for Portland Cement Concrete Use. Delete section.

702.02. Slag Cement. Delete section.

702.03. Cement Kiln Dust. Delete section.

702.04. Silica Fume. Delete section.

708.04. Composition of Mixtures. In Table 708.6, under “Other Mixture Requirements”, add a row as follows:

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<tr>
<td>Asphalt Cement</td>
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<td>(for Non-Arterial</td>
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<td>pavements only)</td>
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</table>

711.06.D.(1). Acrylic Emulsion Polymer. In the second sentence, after “44 percent by”, delete “weight [mass]”, and replace with “total weight of the acrylic emulsion polymer.”

719.04.A. Description. In the second sentence, after “Type III” add “, Type IV, or Type IX”.

719.05.C. Material and Application. In the first sentence, delete “baking screen enamel or”.

719.05.E. Tests. In the first sentence revise “Ensure screening enamel, stencil pastes, and process inks” to recite “Ensure stencil pastes and process inks”.

726.02. Flexible Conduits. In Table 726.3, under Nonmetallic conduits—culverts, for Corrugated Polypropylene Pipe, delete the requirement for “AASHTO M330”, and replace with “COT 215”.

732. Materials for Guardrail, Guide Posts, Bridge Rail, Miscellaneous Railing, and Fences. Add the following subsection:

“732.10 Fence, Other (Like Kind)
Provide fence, other (like kind), in accordance with contract documents.”

733. Miscellaneous Materials. Add the following subsection:

“733.1 Tactile Warning Device Material”
Provide cast-in-place tactile panels to be embedded into wet concrete. Surface applied products are not allowed. The panels shall meet the size and spacing requirements shown in the plans or the City of Tulsa Standard Drawings.

The tactile panels shall be composed of cast iron or vitrified polymer composite material. The color of the tactile panels shall comply with ADAAG and PROWAG color contrast requirements. Vitrified polymer composite panels shall be yellow and conform to Federal Color No. 33538. The color shall be homogeneous throughout the product. Any variations in color shall be approved by the Engineer prior to installation.

Tactile panels shall meet current ADAAG and PROWAG Guidelines.”

735.01. Sodding and Sprigging Materials. Within subsections A, B and C, delete the word “Bermuda”.

735.01.B.(1). Solid Slab Sod. At the end of the first paragraph add “Nylon mesh shall not be allowed in solid slab sod.”

740.01. Materials.
- Delete the first three paragraphs.
- In fourth paragraph, delete “aluminum sheet material”. Replace with “louvered aluminum backplates”.
- At the end of the fifth paragraph, add “Retroreflective sheeting shall be 2 inches wide and attached to the front perimeter of the backplate. Retroreflective sheeting shall be fluorescent yellow.”

740.02. Finish. After “Ensure the backplate is” add “flat”.

801.01. Description. Delete the second paragraph. Replace with the following:
“The contractor shall obtain the necessary permits for electrical inspection on all signal and lighting work. Electrical inspections shall include all electrical equipment, enclosures, devices, cables, conductors and raceways as defined by the NEC. High or low voltage shall be installed, maintained, connected or removed by a State of Oklahoma licensed Electrical contractor. All work shall meet the requirements of the NEC. The City of Tulsa shall reserve the right to define workmanlike manner. Proof of license shall be carried on person at all times and be available to City of Tulsa personnel upon request per Title 158- Construction Industries Board Chapter -40 Subchapter 11-2(a)(9). The Contractor shall contact City of Tulsa Traffic Operations to obtain the address needed to obtain the permit.”

801.04.A. General. Replace all references to “60-cycle” with “60 hertz”.

802. Electrical Conduit. Delete section.


804. Concrete Footings. Delete section.

806. Poles and Mast Arms. Delete section.

807.02. Materials. In the second sentence of the second paragraph, replace “plastic” with “hardened, tamper-proof”.

807.06. Basis of Payment. In the last paragraph, replace “plastic” with “hardened, tamper-proof”.

809. Luminaires. Delete section.

810. Power Supplies. Delete section.


813.02. Materials. In the first two sentences of the first paragraph, after “(2) hardcopies” add “and one (1) electronic (pdf) copy”.

813.02.a. Structural Design.

- In the second sentence of the first paragraph, delete “corrosion-resistant (stainless or galvanized steel, or aluminum)”. Replace with “galvanized steel”.
- In the eighth paragraph, after “Provide the following luminaire ring suspensions as required by the Contract:”, add “(Only top latching systems are allowed.)”.

813.04. Construction Methods. In the first paragraph, delete the third sentence and replace with “Submit to the Resident Engineer one (1) electronic (pdf) copy and at least five (5) hardcopies per project or one (1) copy per device.”

825. Traffic Signal Controller Assembly. Delete section.


828. Vehicle Loop Detector and Loop Detector Wire. Delete section.


850. Signs. Delete section.
851. Galvanized Steel Sign Posts. Delete section.

855.04.B. Application of Markings. At the end of the first paragraph, add “Remove temporary markings and reflective tabs prior to installing permanent markings.”

856. Traffic Stripe (Multi-Polymer). Delete section.

858.04. Construction Methods. At the end of the second sentence of the first paragraph, delete “maker”, and replace with “marker”.

880.02.B.(5). Warning Lights. In the first sentence, delete “6F-7OF”, and replace with “6F.83”.

880.05.B. Lump Sum Pay Item. At the beginning of the second paragraph, revise “If additional and compensation” to recite “If additional compensation”.

Section 2. REPEAL OF CONFLICTING ORDINANCES. That all other ordinances or parts of ordinances in conflict herewith be and the same are now expressly repealed.

Section 3. SEVERABILITY. If any section, subsection, paragraph, subparagraph, sentence, clause or phrase of this ordinance shall be declared invalid for any reason whatsoever, such decision shall not affect the remaining portions of this ordinance, which shall remain in full force and effect, and to this end the provisions of this ordinance are hereby declared to be severable.

Section 4. EFFECTIVE DATE. This ordinance shall be effective on July 1, 2021.

JUN 02 2021

ADOPTED by the Council:

Date

Vanessa H. Hefley
Chair of the Council

OFFICE OF THE MAYOR

Received by the Mayor: at

Date Time

G.T. Bynum, Mayor

By: Secretary
APPROVED by the Mayor of the City of Tulsa, Oklahoma: ________________

at ____________________

Time

_________________

Mayor

ATTEST:

__________________

City Clerk

APPROVED:

__________________

City Attorney

0K-JMS
SPECIFICATIONS

A. Oklahoma Department of Transportation Standard Specifications for Highway Construction, 2019 Edition, shall be used on this project including Section 100-General Provisions, as modified by Ordinance No. 24616

B. City of Tulsa, Engineering Services Department Construction Specifications – March 2022 are incorporated herein as if fully set forth and are on file, including all revisions posted on internet prior to bid opening, with the Engineering Services Department, Engineering Design Division, 2317 S. Jackson Ave. Tulsa, Oklahoma or access on the internet at: http://www.cityoftulsa.org/government/departments/engineering-services/specification-checklists-and-details
SPECIAL

PROVISIONS
SPECIAL PROVISION
SUPPLEMENTAL CONTRACT REQUIREMENTS
PROJECT NO. 2035X001Z
BUILD/LINK-ADA UPGRADES,
FIBER OPTIC INSTALLATION, AND TRAFFIC SIGNAL UPGRADES

1. Successful Contractor shall return fully executed contract documents (including bonds and insurance) to the City of Tulsa, Contract Administration Section, Room N-103, 2317 South Jackson Avenue within two (2) weeks after bid opening.

2. If the successful Contractor can provide proper bonds and insurance and the contract is executed, the Pre-Construction Conference for this project will be held within eight (8) weeks after bid opening.
SPECIAL PROVISIONS

INSURANCE REQUIREMENTS

In reference to Ordinance No. 24616 Adoption of State Specification for Highway Construction, Section 107.12 shall be modified as follows:

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

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

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

The CONTRACTOR shall provide proof of such coverage:

(a) By providing Certificate(s) of Insurance prior to the execution of this contract; and

(b) By submitting updated Certificate(s) of Insurance with each and every subsequent request for payment. The Certificate(s) should show that the policies are current and should be dated within 30 days of payment request.

The CONTRACTOR shall not cause any required insurance policy to be cancelled or permit it to lapse. If the CONTRACTOR cancels, allows to lapse, fails to renew or in any way fails to keep any required insurance policy in effect, the City will suspend all progress and/or final payments for the project until the required insurance is obtained. Further, a CONTRACTOR who fails to keep required insurance policies in effect may be deemed by the City to be in breach of contract, ineligible to bid on future projects, and/or ineligible to engage in any new contracts.

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

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

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

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

All bonds and insurance must be executed by a company licensed to do business in the State of Oklahoma and must be acceptable to the City.
SPECIAL PROVISIONS GENERAL

1. Work Days: All work to be completed within 730 calendar days for the Base Bid.

2. No work shall be done between the hours of 7:00 p.m. and 7:00 a.m., nor on Saturday, Sunday, or legal holidays without the prior written approval or permission of the Engineer in each case, except such work as may be necessary for the proper care, maintenance, and protection or work already done, or of equipment, or in the case of an emergency.

3. Traffic Control: All work shall be done in cooperation with the City to establish, install, maintain and operate complete, adequate and safe traffic control during the entire construction period. Barricades, signs, lights, flags and all other traffic control devices shall meet the requirements and specifications of the Standard Drawings entitled “Typical Applications of Traffic Control Devices”, and shall be approved by the Traffic Engineer of the City of Tulsa. Two-way traffic shall be maintained at all times, unless otherwise approved by the Engineer. All contractors shall contact the City of Tulsa Traffic Engineering Section before removing or replacing traffic devices, detector loops and street signs. A traffic plan must be submitted for any temporary street closure at least 2 working days prior to planned closing.

4. Contractor shall provide an acceptable 10’ straightedge for this Project. All transverse joints shall be straight edged and approved by the Engineer. Surface elevations will meet ODOT 401.04 and all other contract requirements.

5. The Engineer may do quality assurance testing in addition to that performed by the Contractor. The Engineer or a testing laboratory designated by the Engineer will do any testing for quality assurance. The City will pay all costs of quality assurance.

6. Full depth sawing of patches is required. This area to be removed shall be marked by the Contractor under the direction of the Engineer. The Contractor will provide personnel and equipment for marking of the patches as directed by the Engineer. Cost of full depth sawing shall be included in bid item for patching areas.

7. Areas to be patched shall be delineated in a straight-line geometric pattern. When completed, the patch shall be level and provide a smooth riding surface. Portland Cement Concrete patches will be protected from all traffic for a minimum period of 24 hours before removal of protective devices. No open excavations will be left overnight.

8. All asphalt patch work will require that asphalt rollers and an asphalt laydown machine be available for use on the job as directed by the Engineer.
9. Contractor will be required to employ the use of an Automatic Grade Referencing System. The equipment shall be capable of accurately and automatically establishing grades along each edge of the machine by referencing the existing pavement by means of a ski or joint matching shoe, or from an independent grade control. Minimum length of ski shall be 40'.

10. Prior to application of tack coat, the street shall be blown clean with compressed air to the satisfaction of the Engineer.

11. The tack coat must be uniformly distributed and adequately cured prior to beginning the overlay.

12. Contractor shall be responsible for cleanup and/or removal of any excessive overspray of any tack coat material to the satisfaction of the Engineer.

13. Debris from routing of cracks and cold milling shall be swept and vacuumed from the street to the satisfaction of the Engineer.

14. Contractor will be responsible for preparation and distribution of a written notice to residents within 48 hours of beginning milling and overlay operations. Costs associated with this requirement will be included in other items of work.

15. Contractor shall provide a continuous work effort towards total completion of the work in an area prior to moving to a different location.

16. All full depth asphalt patches will be made only after milling is complete, if milling is required, and prior to overlay.

17. No masonry structures shall be used in street right of way. Either precast or cast-in-place structures shall be used.

18. No lifting holes will be allowed in any reinforced concrete pipes or reinforced concrete boxes.

19. No fly ash is allowed to be used on this project.

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

21. Driveways. Access to properties and businesses adjacent to the right of way must be provided and maintained at all times unless otherwise directed/approved by the Engineer. The Contractor will contact the business or property owner at least 5 days in advance of any driveway closure. Driveways and patches in front
of driveways, which are removed, shall not be left unusable overnight. If concrete cannot be placed the same day as removal, the Contractor shall furnish screening or other suitable aggregate material to maintain temporary access until concrete can be placed. The cost of placing and removing the material for temporary access shall be included in the pay item for Concrete Driveway (High Early Strength). Failure to leave any driveway usable will subject the Contractor to a $1000.00 per day fine for each and every calendar day that the driveway remains non-useable. The only exception for a driveway to be non-useable is to allow for curing time for concrete. Cure time will not exceed 48 hours.

22. Driveways in excess of 18-feet in width shall be constructed in half-sections and access shall be maintained at all times.

23. Contractor shall prepare and present a schedule and plan for lane and driveway closures throughout the project. The Contractor shall include in the plan, driveway signage for local business access. Payment for signs will be included under the pay item “Signage for Local Business Access” and will be paid for by the square foot. Coordination with the City of Tulsa and local business operators shall be required before a driveway schedule and plan is approved.

24. Contractor shall coordinate with the City of Tulsa and local business operators to identify opportunities to perform weekend or “after business hours” construction on driveways to minimize impacts to the area.

25. Local and through traffic shall be maintained at all times through the project unless otherwise permitted by the Engineer. All public and private streets shall be accessible at all times. All detours, horizontal traffic movements, etc. are directly related to the sequence of work; therefore, the Contractor shall proceed with his construction operation in conformity with the details shown on the plans and as required by this special provision.

26. Traffic must be handled appropriately through the entire project during construction and it shall be the responsibility of the Contractor to provide for the safety and comfort of the traveling public at all times. The Contractor shall be required to give the traveling public at least 48 hours advance notice of any lane and/or street closures.

27. The Contractor may propose/recommend modifications to the sequence of work for consideration by the Engineer. Any major recommended modification by the contractor shall include any changes to the various pay items, impact to traffic, and effect of overall project in time and cost, etc. The Contractor shall not
proceed with any construction operations based on a revised phase/sequence until the Contractor obtains written approval from the Engineer.

28. Two lanes shall remain open to traffic, one in each direction, throughout all phases of construction, unless otherwise approved/directed by the Engineer. Left turn lanes shall remain open to traffic throughout all phases of construction, unless otherwise approved/directed by the Engineer. Transitions from pavement elevations through construction areas to access driveways or intersections shall be the Contractor's responsibility. Contractor shall maintain signs and markings on a continuous basis.
SPECIAL PROVISIONS
TIME FOR COMPLETION

1. The work shall commence within ten days from and after the date of a written work order from the City. The Contractor agrees that the work shall be prosecuted regularly, diligently and uninterruptedly at a uniform rate of progress so as to ensure completion within the number of days after the day on which the work order is issued. If the Contractor shall fail to complete all work within the time specified, then the Contractor agrees to pay the City, not as a penalty, but as liquidated damages for Breach of Contract, the Sum of Two Thousand Five Hundred Dollars ($2,500.00) for each and every calendar day for failure to complete all work within the time specified. The said amount is fixed and agreed upon because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the City would in such event sustain. It is expressly understood and agreed that the said time for completion of the work described herein is a reasonable time for the completion of same.

2. If the Contractor shall fail to complete reconstruction of a segment of roadway within thirty (30) days of beginning the reconstruction operation, then the Contractor agrees to pay the City, not as a penalty, but as liquidated damages for such breach of contract, the sum of Two Thousand Five Hundred Dollars ($2,500.00) for each and every calendar day of failure to complete the work after the specified time. The said amount is fixed and agreed upon because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the City would in such event sustain. This time constraint applies only to roadways to be reconstructed and includes all subsidiary work items required to complete the reconstruction. Subsidiary items not required to complete the reconstruction are not subject to this time constraint.

3. If the Contractor shall fail to complete overlaying of any separately milled segment of roadway within twenty (20) days of beginning the milling operation, then the Contractor agrees to pay the City, not as a penalty, but as liquidated damages for such breach of contract, the sum of Two Thousand Five Hundred Dollars ($2,500.00) for each and every calendar day of failure to complete the work after the specified time. The said amount is fixed and agreed upon because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the City would in such event sustain. The City will authorize when milling is to be done based on weather conditions. This time constraint applies only to segments to be milled and includes all subsidiary work items required to complete the overlay. Subsidiary items not required to complete the overlay are not subject to this time constraint.

4. The Contractor shall commence work within 24 hours of traffic control devices being established at the project location. If the Contractor shall fail to commence work within 24 hours of traffic control devices being established at the project...
location, then the Contractor agrees to pay the City, not as a penalty, but as liquidated damages for such breach of contract, the sum of **One Thousand Dollars ($1,000.00)** per lane for each day of failure to commence work after the specified time set forth. The amount is fixed and agreed upon because of the impracticability and extreme difficulty of fixing and ascertaining the actual damage the City would in such event sustain.

5. / **Within 14 days** after Bid Opening and prior to Award of Bid the successful Contractor will be required to furnish the Engineer with a progress schedule, in a format approved by the Engineer, setting forth in detail the procedure he proposes to follow, and giving the dates on which he expects to start and to complete separate portions of the work. If at any time, in the opinion of the Engineer, proper progress is not being maintained, such changes shall be made in the schedule of operations, which will satisfy the Engineer that the work will be completed within the period stated in the Proposal. Monthly progress meetings will be conducted to maintain coordination between all project entities.

6. The Contractor will be required to provide a full-time, onsite English speaking superintendent for this Project for direct contact with City and coordination of subcontractors. A working foreman is not acceptable as a project superintendent. The superintendent shall be required to be present at the work site whenever the Contractor or subcontractors are performing work. The superintendent shall be a representative of the Contractor with the authority to make decision. If the Contractor shall fail to provide a non-working superintendent on a day when work is being performed, then the Contractor agrees to pay the City, not as a penalty, but as liquidated damages for such breach of contract, the sum of **One Thousand Dollars ($1,000.00)** for each and every calendar day of failure to provide a non-working superintendent at the work site. The said amount is fixed and agreed upon because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the City would in such event sustain.

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

8. Should the Contractor be delayed in the final completion of the work by any act or neglect of the City of Tulsa, or of any employees of either, or by strikes, injunctions, fire or other cause or causes outside of and beyond the control of the Contractor and which, in the opinion of the Engineer, could have been neither anticipated or avoided, then an extension of time sufficient to compensate for the delay as determined by the Engineer, shall be granted by the City, provided however, that the Contractor shall give the City and the Engineer notice in writing of the cause of the delay in each case on the Extension of Time Request Form enclosed in these documents, and agrees that any such claim shall be fully
compensated for by an extension of time to complete performance of the work included herein.

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

10. Extension of time may be granted for delays caused by unsuitable weather. Extension of time will not be granted for delays caused by ground condition, inadequate construction force, or the failure of the Contractor to place orders for equipment or materials a sufficient time in advance to ensure delivery when needed. Any extension of time by the City shall not release the Contractor and surety herein from the payment of liquidated damages for a period of time not included in the original contract or the time extension as herein provided.

11. Failure to complete project within specified time, as set forth in the Contract, may be grounds for disqualification for future consideration for contracts with the City of Tulsa.

12. Final Acceptance of the Project will be in strict accordance with ODOT Specification 105.17—Project Completion and Acceptance and ODOT Specification 104.10—Final Cleaning Up and defined as “The date on which the Request for Action (RFA) for final payment has been signed by the Mayor of the City of Tulsa.”

13. Contract Evaluation forms will be compiled by City staff upon completion of this Project to provide a record of the Contractor’s performance for use in subsequent projects.
SPECIAL PROVISIONS
FOR ADJUSTMENT OF ROADWAY UTILITIES

1. Contractor is to remove the rings and covers of manholes and water valves and
the frames and grates of single grate drop inlets and double grate drop inlets. If
these items are to be reused, the Contractor is to mark, store and protect these
materials for later placement in the exact orientation existing at the beginning of
the Project. After removal of these obstructions, the Contractor shall place over
each hole 5/8" thick steel plate cut to the proper size as directed by the Engineer.
After placement of steel plate, the hole shall be filled with compacted asphalt to
the established street grade. It shall be the Contractor’s responsibility to make
the necessary measurements to ensure that all utilities can be easily located
after overlay. After the overlay the Contractor shall raise the utilities to the new
grade.

2. Manholes and inlet basins shall be raised or lowered as required by using a solid,
continuous layer of bricks and mortar. The upper portion of manhole or basin
shall be removed as required for correct raising or lowering adjustment. If
existing basin or manhole walls are concrete, the Contractor may dowel apron
into wall in lieu of removing the upper portion of wall. Dowels shall be #4, at 1’ –
0” O.C. grade 60 steel.

3. All existing I-beams on double or triple grate frames shall be re-established under
grates.

4. Where basins or manholes are covered for construction or other purposes, curbs
shall be marked with green paint.

5. Silicone construction joint material per Public Works Standards shall be used
where concrete aprons meet existing or new concrete pavement. Bituminous
construction joint material per Public Works Standards shall be used where
concrete aprons meet existing or new asphalt pavement.

6. The Contractor shall place a minimum ½" thick flexible gasket bitumastic sealant
material in two concentric rings, along the inside and outside edge of the top of
the manhole prior to reinstalling the frame. The gasket shall be E-Z STIK Butyl
Rubber Sealant, PRO-STIK Performed Joint Sealant or equal. The material shall
be able to withstand hydrogen sulfide and other corrosive gasses. After the frame
has been set, a normal ½ coat of trowelable bitumastic joint sealant shall be
applied to the entire outside circumference of the manhole. The sealant shall be
applied from the top of the lower flange down a minimum of 6” below the frame
connection. It shall then be wrapped with a 6 mil plastic to protect against
damage from backfill. The trowelable material shall be Joint Mastic Sewer Joint
Compound or equal. The cost of the material and labor associated with installing
it shall be included in the price bid for manholes, adjust to grade.
PLAN VIEW

SECTION A

LAMPHOLES IN ASPHALT
ADJUST TO GRADE

N.T.S.

ARU-2
PLAN VIEW

SECTION A

WATER VALVES TO GRADE IN ASPHALT STREET

N.T.S.

3/31/22

ARU-3
SPECIAL PROVISIONS
FOR BIKE PATH MARKINGS

This work shall consist of the construction of bike path symbols in reasonably close
conformity with the Plan Details for "Bike Path Symbol", "Bike Path Callout", or as
established by the Engineer.

Materials shall be 3M, Series 380 High Performance Tape and Epoxy, Stamark Contact
Cement E-44-T. Methods of Construction shall meet ODOT specifications 711.05,
711.07, and 858.04 of the standard specifications.

Construction of bike path symbols will be measured by each complete symbol and shall
be paid at the Contract unit price for:

BIKE PATH MARKINGS          EA

Which will be full compensation for performing the work specified and the furnishing of
all materials, labor, tools, equipment, and incidentals necessary to complete the work as
specified.
SPECIAL PROVISIONS
FOR CRACK SEALING OF AC STREETS
WITH RUBBERIZED ASPHALT

All cracks from ¼" wide to 1" wide shall be routed, blown and filled with rubberized asphalt by use of a melter-applicator as described in ASTM D3405 XI.I. If the manufacturer of the sealant has specifications that exceed those of ASTM D3405, then the manufacturer’s specifications will be used.

Fill cracks to within 1/8 inch below pavement surface and blot any excess with approved material (no ridges).

Sealant material shall meet the requirements of ODOT 701.08 “Joint Fillers and Sealers” and meet or exceed ASTM D3405-78.

Asphalt crack seal will be measured by the linear feet of cracks that are sealed, excluding the areas that are patched.

The accepted quantities measured as provided above will be paid for at the Contract unit price as asphalt crack seal by the linear feet of cracks that are sealed, excluding the areas that are patched, which shall be full compensation for furnishing all materials, equipment, labor and incidentals to complete the work specified.

Approval of Joints: At the City of Tulsa’s request, a representative of the sealant supplier will be on site at the beginning of the final cleaning and sealing of the joint to demonstrate to the Contractor and to Inspection the acceptable standard for installation of the sealant. No sealing shall commence until the manufacturer’s representative has approved the joints. Failure of the sealant to bond to the joint/crack surfaces will be cause for rejection and repair shall be at the Contractor’s expense.

Submittals: No work shall begin until the Contractor has submitted the following to the City as a minimum:

A. Manufacturer’s Material Specifications
B. Manufacturer’s Installation Specifications
C. Manufacturer’s Joint/Crack Dimension Specifications.

Concrete curb: Concrete curb and combined curb and gutter to be removed and replaced shall receive joints per ODOT Specification 609.04(e) and be sealed with silicone. Costs for joints and sealer to be included in the unit price bid for either concrete curb or combined curb and gutter.

All sawing necessary for sealing shall be included in the cost of the sealant where used.
1. Contractor will perform milling operation in accordance with ODOT Specifications as stated in Section 417.

2. Contractor will be required to perform the following as a minimum:
   
   A. Milling of Asphalt Pavement per Specifications and Special Provision.
   
   B. Provide all Traffic Control per Specifications and Special Provision.
   
   C. Clean-up Milling Operation as directed by Engineer. This will include removal of unbonded asphalt overlays and sweeping.

3. All streets designated for milling shall be milled as shown on typical sections. If street is full depth Asphalt the depth of cut shall be as specified for each segment. If street is concrete with an Asphalt Overlay then all existing asphalt shall be removed. Boring logs are included as Appendix A. No payment will be made for any additional passes necessary to remove asphalt to the required cross section. Care should be exercised not to mill into the underlying concrete pavement. The Contractor will be responsible for damage to concrete caused by excessive milling.

4. The Contractor shall provide a power operated milling machine capable of planing a minimum depth of three inches in a single pass. The equipment shall be self-propelled with sufficient power, traction and stability to maintain accurate depth of cut and slope. The equipment shall be capable of accurately and automatically establishing profile grades along each edge of the machine by referencing the existing pavement by means of a ski, or matching shoe or from an independent grade control, and shall have an automatic system for controlling cross slope at a given rate. The machine shall be equipped with an integral loading means to remove the material being cut from the pavement surface and to discharge the cuttings into a truck, all in a single operation.

5. Milled material to remain the property of the contractor.

6. The Contractor shall provide butt joints as directed by the Engineer. Wherever the planned overlay of an asphalt street meets existing pavement, or at the end of a paving run, butt joints shall be provided to a depth matching the planned overlay thickness. The transition shall extend a minimum of 10 feet longitudinally from the joint for residential streets and a sufficient length to provide a smooth riding surface for arterial streets. Butt joints will not be paid for directly, but the cost shall be included in the price bid for milling.
7. Entrance and Exit Areas to projects:

After an entrance or exit area has been milled, the Contractor shall construct access ramps. These ramps shall be a minimum of 20’ in length and shall be placed across full width of street. These ramps shall be maintained by Contractor and shall remain in place until lanes are closed for overlay. Ramps will be provided at driveways and non-arterial streets as needed to maintain a smooth transition for abutting properties during construction. Ramps will not be paid for directly, but the cost shall be included in the price bid for milling.

8. The existing pavement shall be uniformly milled to provide a uniform texture, true to line, grade and cross section; it shall have no deviations in excess of 3/16 inch in ten feet. Any portion of the planed surface not meeting this requirement shall be corrected in a manner approved by the Engineer.
SPECIAL PROVISIONS
FOR
CONTRACTOR'S QUALITY CONTROL

The units for this project will be those specified in the project plans.

643.01. DESCRIPTION.
Furnish Quality Control of materials and construction in accordance with the Standard Specifications, Plans and Special Provisions. This includes, but is not limited to preparing and following a Quality Control Plan (See Part 643 Tables 1–7). Obtain samples and perform tests for Quality Control, provide inspection, and exercise management control to produce materials and workmanship that conforms to contract requirements. Unless otherwise noted in the plans, all pavements and bridges (except culverts) will be subject to requirements of any or all of the Special Provisions which are included in this contract. City of Tulsa will provide Quality Assurance testing at their discretion.

643.02. MATERIALS.
Meet materials quality requirements.

643.03. EQUIPMENT.
Provide equipment at own expense, unless otherwise specified. All equipment and supplies shall conform with Standards and applicable Specifications. Certify the calibration of all equipment.

643.04. CONSTRUCTION.
a) General. Provide quality of all construction covered in the contract.

b) Quality Control Personnel Qualifications. All personnel directly involved in sampling and/or testing materials for either control or acceptance purposes shall be certified in the appropriate area(s) by the Oklahoma Highway Construction Materials Technician Certification Board. Manager certification for material sampling and testing is not required unless he or she is directly involved in sampling and/or testing materials.

c) Contractor's Quality Control Plan. Submit a written Quality Control Plan at least one week prior to the pre-work conference. Include the following in the plan:

1. Sources of principal materials including names of suppliers and locations.
2. Names and resumes of key Quality Control personnel.
3. Duties, responsibilities, and authorities (to suspend production, alter mixtures, etc.) granted to key Quality Control personnel.
4. Description of testing laboratories, including qualifications, key equipment and locations.
5. Description of start-up operations, including but not limited to:
   a. Review of submittal requirements and all other Contract requirements with the performance of the work.
   b. Examine the work area to ascertain that all preliminary work has been completed.
   c. Verify all field dimensions and advise the Engineer of any discrepancies.
6. Detailed testing schedule based on production.
7. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification requiring the test, feature of work to be tested, and person responsible for each test.
8. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.
d) **Sampling and Testing.** Perform sampling and testing according to the accepted Quality Control plan using personnel certified in appropriate areas and laboratories approved by the Engineer. Keep laboratory facilities clean and maintain all equipment in proper working condition.

e) **Inspection.** Provide inspection necessary to ensure compliance with applicable standards and specifications.

f) **Records.** Maintain complete testing and inspection records and make them accessible to the Engineer.

1. **Test Results.** Maintain control charts that identify the project number, contract item, test number, each test parameter, the upper and/or lower specification limit applicable to each test parameter, and the test results. Use the control charts as part of the Quality Control system to document process variability, to identify production and equipment problems, to make necessary corrections, and to identify potential pay factor adjustments.

   i. Post control charts in an accessible location, keep them up to date, and make them available to the Engineer upon request. Make corrections to the process when problems are evident, including ceasing production if necessary.

2. **Inspection Results.** For each day of work, prepare an “Inspector’s Daily Record of Construction Operations” on an approved form. Include the following certification signed by the person with overall responsibility for the inspection system:

   i. “It is hereby certified that the information contained in this record is accurate, and that all work documented herein complies with the requirements of the contract. Any exceptions to this certification are documented as a part of this record.”

3. Submit the record and certification to the Engineer within two working days of the work being performed. If the record is incomplete, in error, or otherwise misleading, a copy of the record will be returned with corrections noted. When chronic errors or omissions occur, correct the procedures by which the records are produced.

g) **Use of Contractor Test Results for Acceptance Purposes.** Abbreviated test procedures are allowed for Contractor use. The Quality Control Plan shall list all abbreviated test procedures, describe all deviations from standard procedures for each, and note their intended purpose. Test results from abbreviated procedures will not be used for any purpose by the City of Tulsa. It is the Engineer’s discretion to use or not use any of the Contractor’s test results for acceptance purposes.

h) **Changes.** Submit, in writing, all proposed changes in key Quality Control personnel, equipment or procedures from those previously approved by the Engineer. Submit written changes at least one week prior to the proposed action.

643.05. **METHOD OF MEASUREMENT.**

  Payment for Contractor’s Quality Control will be measured on a lump sum basis.

CQC-2
643.06. BASIS OF PAYMENT.
Accepted Contractor’s Quality Control measured for payment as prescribed above will be paid for at the Contract unit price for:

CONTRACTOR’S QUALITY CONTROL ..................................LUMP SUM

This payment will be full compensation for furnishing all materials, facilities, equipment, labor and incidentals to complete the work.

Subject to acceptable performance, payment for Contractor’s Quality Control will be made in accordance with the following schedule:

25% on the next estimate after the Engineer’s approval of the Contractor’s Quality Control Plan and other required initial documentation

plus 25% when 50% of the work subject to Quality Control requirements is complete

plus 25% when 75% of the work subject to Quality Control requirements is complete

plus 25% when all test results and records related to Quality Control work have been furnished to and accepted in writing by the Engineer

As stated above, this payment is based upon acceptable performance. Payment will be reduced for unacceptable portions of the Quality Control work. Serious deficiencies in Quality Control work may result in the project being shut down.
<table>
<thead>
<tr>
<th>ODOT/COT SUPPLIES</th>
<th>MATERIAL</th>
<th>TYPE OF TEST(S) REQUIRED</th>
<th>SAMPLING POINT</th>
<th>MINIMUM SAMPLING/TESTING FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>411, 708</td>
<td>Asphalt Concrete Pavement</td>
<td>Volumetrics, Marshall, Rice &amp; Air Voids</td>
<td>Hot Plant or Roadway</td>
<td>One Per Day's Production.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oil Content (Nuclear/Ignition)</td>
<td>Hot Plant or Roadway</td>
<td>One Per 350 Tons or Fraction Thereof. Minimum One Sample Per Day.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compaction (Core)</td>
<td>Roadway</td>
<td>One Per 300 Linear Feet For Each Lift And Lane Pass Or Fraction Thereof.</td>
</tr>
<tr>
<td></td>
<td>Cold Feed</td>
<td>Gradation</td>
<td>Hot Plant</td>
<td>When Days Production Exceeds 300 Tons: One Prior to First Day of Production and One Per 500 Tons Thereafter.</td>
</tr>
</tbody>
</table>

Remarks:
Asphalt deficient in oil content and/or density shall be cored 50' maximum on both sides of failed section when deemed necessary by the City of Tulsa. The results of the 2 cores shall be averaged with the previous test results.

Minimum sampling and testing is required for each mix and supplier.

City of Tulsa reserves the right to modify sampling and testing requirements as needed to ensure quality of materials.
<table>
<thead>
<tr>
<th>ODOT/COT SUPPLEMENTS</th>
<th>MATERIAL</th>
<th>TYPE OF TEST(S) REQUIRED</th>
<th>SAMPLING POINT</th>
<th>MINIMUM SAMPLING/TESTING FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>414, 701</td>
<td>Portland Cement Concrete (Flatwork)</td>
<td>Compressive Strength</td>
<td>At Discharge</td>
<td>One Set Of Six Cylinders Per 50 Cubic Yards Or Fraction Thereof.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Slump, Time &amp; Temperature</td>
<td>At Discharge</td>
<td>One Per Set Of Cylinders.</td>
</tr>
<tr>
<td>509, 701</td>
<td>Portland Cement Concrete (Structures)</td>
<td>Compressive Strength</td>
<td>At Discharge</td>
<td>One Set Of Six Cylinders Per Type of Structure, Per 50 Cubic Yards, or Days Production</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Slump, Time &amp; Temperature</td>
<td>At Discharge</td>
<td>One Per Set Of Cylinders.</td>
</tr>
<tr>
<td>501, 701, 703</td>
<td>Controlled Low Strength Material</td>
<td>Compressive Strength</td>
<td>At Discharge</td>
<td>One Set of Two Cylinders Per Shift.</td>
</tr>
<tr>
<td>425, 623, 701, 733</td>
<td>Grout</td>
<td>Compressive Strength</td>
<td>At Discharge</td>
<td>One Set of Four Prisms When Required By Engineer or Their Representative.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Slump, Time &amp; Temperature</td>
<td>At Discharge</td>
<td>One Per Set of Prisms.</td>
</tr>
<tr>
<td>521, 701 733, 737</td>
<td>Mortar</td>
<td>Compressive Strength</td>
<td>At Batch Site</td>
<td>One Set of Four Cylinders When Required by Engineer or Their Representative.</td>
</tr>
<tr>
<td>Project Plans &amp; Specifications</td>
<td>Shotcrete</td>
<td>Compressive Strength</td>
<td>At Discharge</td>
<td>One Panel Per 50 Cubic Yards or One Per Mixture, Nozzleman and Shift (Whichever is Greater).</td>
</tr>
</tbody>
</table>

**Remarks:**
Concrete specifications: Time is 90 minutes max; Temperature is 90 degrees Fahrenheit max.

If in the opinion of the Engineer or his/her representative, there is sufficient cause to question the quality of the mortar or grout being utilized, random field sampling and testing may be required.

Shotcrete test panel forms should be wood or steal and a minimum of 24" x 24" x 4", generally shot in a vertical position. Minimum sampling and testing is required for each mix design and supplier.

City of Tulsa reserves the right to modify sampling and testing requirements as needed to ensure quality of materials.
# PART 643 TABLE 3

## SOIL

<table>
<thead>
<tr>
<th>ODOT/COT SUPPLEMENTS</th>
<th>MATERIAL</th>
<th>TYPE OF TEST(S) REQUIRED</th>
<th>SAMPLING POINT</th>
<th>MINIMUM SAMPLING FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>202, 613</td>
<td>Trench Backfill (including lateral trenches)</td>
<td>Proctor Density, Gradation &amp; P.I.</td>
<td>In-Place</td>
<td>One Per Soil Type.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>One Per 8&quot; Lift For Every 100 Linear Feet, Per Pipe Run, or Day's Production.</td>
</tr>
<tr>
<td>310</td>
<td>Subgrade</td>
<td>Proctor Density, Gradation &amp; P.I.</td>
<td>In-Place</td>
<td>One Per Soil Type.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compaction &amp; Moisture Content</td>
<td>In-Place</td>
<td>Every 100 Linear Feet Or Day's Production.</td>
</tr>
<tr>
<td>202, 501</td>
<td>Structure Backfill</td>
<td>Proctor Density, Gradation &amp; P.I.</td>
<td>In-Place</td>
<td>One Per Soil Type.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compaction &amp; Moisture Content</td>
<td>In-Place</td>
<td>One Per 8&quot; Lift Per Structure</td>
</tr>
<tr>
<td>202</td>
<td>Roadway Fill &amp; Embankments</td>
<td>Proctor Density, Gradation &amp; P.I.</td>
<td>In-Place</td>
<td>One Per Soil Type.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compaction &amp; Moisture Content</td>
<td>In-Place</td>
<td>One Per 8&quot; Lift For Every 100 Linear Feet Or Day's Production.</td>
</tr>
<tr>
<td>202</td>
<td>Import</td>
<td>Proctor Density, Gradation &amp; P.I.</td>
<td>Import Site or On-Site Stockpile</td>
<td>One Per Soil Type.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compaction &amp; Moisture Content</td>
<td>In-Place</td>
<td>One Per 8&quot; Lift For Every 100 Linear Feet Or Day's Production.</td>
</tr>
</tbody>
</table>

**Remarks:**

*For Infrastructure Development Projects (IDP) only. Testing Frequencies as follows:*

Sewer & Water Services (30%) Driveways, Aprons and ADA ramps (50%) Valley Gutters (100%)

Dry Utility, Fire Hydrant, Fire Line and Storm Drain (100%)

Import material shall be Select Borrow in accordance with Section 202 and 705. All fill materials shall be placed at +/- 2% of the optimum moisture content.

**The nuclear density gauge is to be correlated with a sand cone for every 10 tests taken, or 1 per day, whichever is greater.**

City of Tulsa reserves the right to modify sampling and testing requirements as needed to ensure quality of materials.
### PART 643 TABLE 4
AGGREGATE BASE

<table>
<thead>
<tr>
<th>ODOT/COT SUPPLEMENTS</th>
<th>MATERIAL</th>
<th>TYPE OF TEST(S) REQUIRED</th>
<th>SAMPLING POINT</th>
<th>MINIMUM SAMPLING FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>303, 703, 708</td>
<td>Aggregate Base (AB)</td>
<td>Proctor Density</td>
<td>Stockpile, Windrow, Roadway</td>
<td>At Start of Production and as Material Changes per Supplier and/or Plant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compaction &amp; Moisture Content</td>
<td>Roadway, Pipe Bedding, Initial Backfill</td>
<td>One per 100' per Lift or One per Lane Pass or Days Production</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gradation, PI (Wet Prep)</td>
<td>Stockpile, Windrow, Roadway</td>
<td>One per Project, or One per 1000 Tons or Fraction Thereof</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specific Gravity</td>
<td>Stockpile, Windrow, Roadway</td>
<td>At Start of Production and as Material Changes per Supplier and/or Plant</td>
</tr>
</tbody>
</table>

**Remarks:**

If asphalt millings are used for bedding, they shall meet the requirements of virgin Aggregate Base per ODOT.

Millings must meet all ASTM C-33 requirements.

Millings cannot be placed until the material has been certified by ODOT/COT approved testing lab.

City of Tulsa reserves the right to modify sampling and testing requirements as needed to ensure quality of materials.

---

### PART 643 TABLE 5
REINFORCEMENT

<table>
<thead>
<tr>
<th>ODOT/COT SUPPLEMENTS</th>
<th>MATERIAL</th>
<th>TYPE OF TEST(S) REQUIRED</th>
<th>SAMPLING POINT</th>
<th>MINIMUM SAMPLING FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>724</td>
<td>Steel Reinforcement</td>
<td>Certificate and/or Tests</td>
<td>Project</td>
<td>One Sample For Each Size, Grade &amp; Heat Number Per Shipment &amp; Manufacturer. Certificate Required.</td>
</tr>
<tr>
<td>517, Project Plans &amp; Specifications</td>
<td>Post-Tensioned Steel</td>
<td>Certificate and/or Tests</td>
<td>Project</td>
<td>One Sample For Each Size, Grade &amp; Heat Number Per Shipment &amp; Manufacturer. Certificate Required.</td>
</tr>
<tr>
<td>503, Project Plans &amp; Specifications</td>
<td>Pre-Stressed Steel</td>
<td>Certificate and/or Tests</td>
<td>Project Or Fabrication Plant</td>
<td>One Sample For Each Size, Grade &amp; Heat Number Per Shipment &amp; Manufacturer. Certificate Required.</td>
</tr>
</tbody>
</table>

**Remarks:**

All steel and iron incorporated into Federal-Aid projects must conform to requirements of "Buy America" per 23 CFR 635.410.

City of Tulsa reserves the right to modify sampling and testing requirements as needed to ensure quality of materials.
<table>
<thead>
<tr>
<th>ODOT/COT SUPPLEMENTS</th>
<th>MATERIAL</th>
<th>TYPE OF TEST(S) REQUIRED</th>
<th>SAMPLING POINT</th>
<th>MINIMUM SAMPLING FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>733.06</td>
<td>Elastomeric Bearing Pad (Grade 2)</td>
<td>AASHTO M 251</td>
<td>Project</td>
<td>Two Sample Bearing Pads Selected at Random by Engineer from every 100 Bearing Pads or Portion Thereof. Minimum of One Sample per Lot</td>
</tr>
</tbody>
</table>

**Remarks:**

Two sample bearing pads may be needed to complete the specified testing for smaller bearing pads.

Bearing pads will be selected at random by the Engineer at the project site for testing.

Bearing pads marked or otherwise presented as test bearing pads will not be tested.

Bearing pads must be made available for testing at least four weeks in advance of intended use.

Each bearing pad is to be marked in indelible ink or flexible paint. The marking shall consist of the order number, lot number, bearing identification number, and elastomer type and grade number. The marking shall be on the face that is visible after erection of the bridge.

City of Tulsa reserves the right to modify sampling and testing requirements as needed to ensure quality of materials.
# PART 643 TABLE 7A
## MINIMUM TEST SCHEDULE & FINAL REPORT

**Minimum Testing Schedule:**

A Minimum Testing Schedule is to be created and submitted to the City of Tulsa Field Engineering within 10 business days of project assignment. Testing frequencies are to be calculated using an approved set of plans in conjunction with the bid tab items to create an accurate representation of the minimum testing needed for the project. Any notes, comments, special circumstances and/or assumptions made for quantity calculations should be listed at the bottom of the page.

**Final Report Should Include the Following:**

All laboratories must submit a Final Report after the completion of each project. Laboratories will be notified by the City of Tulsa Field Engineering, via email, that the project is complete and all lab results for soils, concrete & asphalt will be attached. A CD and a hard copy of the Final Report must be delivered to the City of Tulsa Field Engineering within 5 business days from the date of this email.

Final Reports are to include all field and lab tests/results, daily reports and samples taken for the entire project.

All Final Reports must be stamped and signed by a registered professional engineer and shall verify that all materials, sampled and tested, were found to be in compliance with the latest City of Tulsa Standards and Specifications.

Construction materials that fail to meet specification requirements, but were incorporated in the project, must be summarized in the final report with a detailed explanation listing corrective actions or justification for acceptance.

---

# PART 643 TABLE 7B
## INFRASTRUCTURE DEVELOPMENT PROJECTS (IDP) ONLY
## MINIMUM TEST SCHEDULE & FINAL REPORT

**Minimum Testing Schedule:**

A Minimum Testing Schedule shall be created and submitted to the City of Tulsa IDP Inspector, during the pre-construction meeting. Testing frequencies are to be calculated using an approved set of plans, in conjunction with the bid tab items, to create an accurate representation of the minimum testing needed for the project. Any notes, comments, special circumstances and/or assumptions made for quantity calculations, should be listed at the bottom of the page.

**Final Report:**

All laboratories must submit a Final Report at the completion of each project. A spiral bound copy of the Final Report must be delivered to the City of Tulsa IDP Inspector along with final record drawings of the project.

Final Reports shall include all field and lab tests/results (including any acceptance/deficiency test results), daily reports and samples taken for the entire project.

All Final Reports must be stamped and signed by a registered professional engineer and shall verify that all materials, sampled and tested, were found to be in compliance with the latest City of Tulsa Standards and Specifications. Construction materials that fail to meet specification requirements, but were incorporated in the project, must be summarized in the final report with a detailed explanation listing corrective actions or justification for acceptance.
## INSPECTION/TESTING SCHEDULE

<table>
<thead>
<tr>
<th>Service</th>
<th>Minimum Notice (Hours)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate Base:</td>
<td>48</td>
<td>Density testing must be complete prior to stringline.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Obtain samples for proctor/acceptance testing prior to scheduling density</td>
</tr>
<tr>
<td>Aggregate Base Thickness:</td>
<td>48</td>
<td>Per Plans &amp; Specifications</td>
</tr>
<tr>
<td>Aggregate Base Sampling:</td>
<td>48</td>
<td>Material must be from a City of Tulsa approved plant.</td>
</tr>
<tr>
<td>Asphalt:</td>
<td>48</td>
<td>Contractor/inspector must call the City of Tulsa Field Engineering for scheduling.</td>
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<tr>
<td></td>
<td></td>
<td>Material must be from an ODOT approved plant.</td>
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<tr>
<td>Backfill:</td>
<td>48</td>
<td>Obtain samples for proctor/acceptance prior to scheduling density testing.</td>
</tr>
<tr>
<td>Concrete:</td>
<td>48</td>
<td>Material must be from an ODOT approved plant.</td>
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<tr>
<td>Coring:</td>
<td>48</td>
<td>Allow time to schedule and set up traffic control if required.</td>
</tr>
<tr>
<td>Crack Seal:</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Footing Inspection:</td>
<td>24</td>
<td></td>
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<tr>
<td>Grout:</td>
<td>24</td>
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<tr>
<td>Import:</td>
<td>24</td>
<td>Material must be approved by the City of Field Engineering prior to placement.</td>
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<tr>
<td>Mortar:</td>
<td>24</td>
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<tr>
<td>Post Tension Pre-Pour Inspection:</td>
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<td></td>
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<tr>
<td>Post Tension Stressing Inspection:</td>
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<tr>
<td>Post Tension Sampling:</td>
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<tr>
<td>Reinforcing Steel (Inspection):</td>
<td>48</td>
<td></td>
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<tr>
<td>Reinforcing Steel (Sampling):</td>
<td>48</td>
<td></td>
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<tr>
<td>Shotcrete:</td>
<td>48</td>
<td>Contractor shall provide 16&quot; x 16&quot; x 4&quot; sampling panel.</td>
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<tr>
<td>Sidewalk Slope Inspection:</td>
<td>24</td>
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<tr>
<td>Slurry (CLSM):</td>
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<tr>
<td>Slurry Seal:</td>
<td>48</td>
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<tr>
<td>Soil Sampling:</td>
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<tr>
<td>Stringline:</td>
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<tr>
<td>Subgrade:</td>
<td>24</td>
<td>Density testing must be complete prior to stringline. Obtain samples for proctor/acceptance testing prior to scheduling density</td>
</tr>
<tr>
<td>Weld Inspection:</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

Inspection/Testing schedule time listed above has been considered in contract time. No additional time will be given.

**SECTION END**
SPECIAL PROVISIONS
FOR COLD WEATHER CONCRETE CURING

Placement of asphalt on street cut repair sections of cold weather concrete or opening of street cut repair sections of cold weather concrete to traffic shall be allowed when the concrete achieves a compressive strength of 3,000 pounds per square inch (psi). Construction equipment loads shall not be applied to the concrete repair section until the 3,000 psi compressive strength is achieved.
SPECIAL PROVISIONS
FOR COLD WEATHER CONCRETE PLACEMENT

1. When early traffic placement on a repair is required, the following guidelines are provided as a minimum to assure required strength during cold weather. The Contractor is responsible for the protection and quality of concrete placed during all weather conditions. If circumstances occur which preclude following these guidelines, lower early strength may result in delays in opening areas to traffic as desired.

2. Ice, snow, and frost must be removed from the cut prior to placement of concrete. Concrete should not be placed on frozen subgrade. Removal of frozen subgrade will be paid as unclassified excavation.

3. Fresh concrete temperatures shall be a minimum of 50°F and a maximum of 90°F at time of placement. Hot mix water and preheated aggregate may be necessary to accomplish the minimum temperature during extremely cold weather. The minimum ambient temperature at time of placement should be at least 30°F.

4. Insulated blankets should be placed immediately when average daily temperatures are below 50°F or when minimum ambient temperatures are anticipated below 40°F during the curing period and left in place until opening to traffic. Insulated blankets shall be MA KA closed cell insulated blankets or approved equal. The insulated blankets shall have a minimum R-value of 2. Cost of insulated blankets shall be included in the price bid for the concrete where they are used.

5. Strict compliance with mix design slumps must be achieved to reach early strengths. "Drying out" of excessive slump mixes will not be allowed to reduce the slump.

6. All cold weather practices also apply to cementitious backfill material, except that blankets will not be required.
SECTION 27 0000 - FIBER

PROJECT DESCRIPTION AND GENERAL REQUIREMENTS

This part consists of the general provisions necessary when furnishing and installing the ITS Infrastructure as described in the project plans and these special provisions.

This project involves supplying and installing conduit, handholes, fiber optic cable, tracer wire and pull tape, power supplies and cabling, and power terminations deemed necessary for a complete ITS Infrastructure installation designed for use with proposed fiber and device deployments.

1.00 Related Specifications and Standards

a. General.

The work as detailed on the plans for the ITS Infrastructure Installation shall be completed in accordance with the Contract Documents, special provisions, and the documents listed below.

1. NEC, latest edition adopted by the City of Tulsa, Oklahoma.
2. Telecommunications Industry Association/Electronic Industries Association (TIA/EIA) latest editions.

1.01. Contractor's Responsibility.

A. One Call Locating.

Until final acceptance, the Contractor shall provide all utility locates of the work performed under this contract when requested through One-Call services or by the Engineer. The Contractor shall perform any such locations within 48 hours of receiving notice that such locations are needed.

B. Conduit Locations.

Prior to final acceptance, the Contractor shall meet with the City of Tulsa and the Engineer to demonstrate the locate system is working properly throughout the entire locate system.

2.02. Disruption to Existing Fiber Networks.

a. Planned Work Near Existing Fiber Networks.

The Contractor shall ensure continuous operation of the existing fiber networks and systems during construction of the project.

b. Unplanned Disruption.

The Contractor shall be responsible for repairing, to City of Tulsa's satisfaction and at no cost to City of Tulsa, any damage the Contractor causes to the existing fiber networks and systems during the life of the project.

In the event of disruption, the contractor shall simultaneously notify the Engineer and affected parties and immediately stop all work in progress and shall expend all of its efforts to restore the disrupted system(s) and/or correct the problem causing the disruption. The notice shall include the type of facility damaged and the extent of the damage.

The Contractor will not be granted an extension of time for delays caused by repairing disrupted systems.
1.02. Contractor Submissions.

A. Materials List.

Complete and submit one electronic pdf file of the materials list within 30 calendar days after award of the project contract. Include the name of the materials, supplier and catalog number of each item listed.

B. Construction Schedule.

1. Within 30 days after award of contract, the Contractor shall submit to the Engineer one electronic pdf file of the detailed construction schedule including dates of commencement for each major work item, duration of each major work item and completion of each major work item on each segment of the proposed construction.

2. Major items of work to be included on the schedule are installation of conduit, handholes, device poles and foundations, device cabinets and foundations, electrical installations and fiber optic cable.

3. Upon acceptance of the schedule, the Contractor will be expected to adhere to these dates as proposed unless modified with the approval of the Engineer.

4. Submittal and approval of the proposed construction schedule by the Engineer is required before the Contractor can commence construction activities.

C. Shop Drawings.

1. After approval of the Materials List, before any items are ordered, the Materials List items shall be submitted for approval.

2. The Engineer shall review the shop drawings/catalog cuts for the purpose of assuring general conformance with the project design concept and Contract Documents.

3. Provide written notice of any deviations from the requirements of the Contract Documents or special provisions.

4. Engineer’s approval of shop drawings/catalog cuts does not relieve the Contractor of responsibility for providing satisfactory materials complying with the Contract Documents. Errors not detected during review do not authorize the Contractor to proceed in error.

D. Warranty.

1. Transfer all required standard materials warranties on the date of final acceptance to the City of Tulsa.

2. Warranty periods shall not commence prior to final acceptance of the work.

1.03. As-Built Documentation.

A. GPS Data Recording Staking Assistance.

1. The Engineer’s on-site representative will be responsible for collecting GPS data of all installations including, but not limited to: conduit routing, handholes, device poles, device cabinets, and power supplies. All efforts will be made by the Engineer’s on-site representative to coordinate with the Contractor and collect daily construction progress.

2. The Contractor shall be responsible to coordinate and assist the Engineer's on-site representative in this effort by staking, flagging or otherwise locating all installed features until such time that the GPS data can be collected.
3. The Contractor shall electronically capture and store bore depths at least each 10 feet along each bore. The data for completed bores shall be provided daily to the Engineer’s on-site representative in a digital format approved by the Engineer.
PART II
TECHNICAL PROVISIONS

This part consists of the material requirements, construction details, and methods of measurement and basis of payment necessary to complete construction of the ITS Infrastructure project, in place, as described in the Contract Documents.

2.03. General.

1. Provide any items, equipment, or materials not specifically addressed in the Contract Documents but required to provide a complete and functional installation. The level of quality shall be consistent with other specified items. All miscellaneous electrical equipment and materials shall be listed for its specific application.

2. The Contractor shall stake all handholes and proposed conduit alignment a minimum of one week prior to construction and for approval by the Engineer. The Engineer shall authorize any changes in location in writing before performing the installation. No additional compensation shall be provided for additional work associated with or resulting from unauthorized changes to the Contract Documents.

2.04. Equipment.

Furnish all work, apparatus, and materials to install the equipment inside the Fiber Termination Centers as required.

1. Single Panel Housing (Holds 1 Connector Panel and Splice Organizer)
   a. Surface mounted termination/splice housings shall be provided for termination capabilities, splice protection, and associated fiber/pigtail storage.
   b. Surface mount housing shall be intended for splicing and management, and cross-connect or both for up to 12 fibers.
   c. Termination adapter panels shall be duplex SC.
   d. Top and bottom cable entry grommets for incoming fiber, fiber jumper.
   e. Manufactured of metal.
   f. Hinged front door, universal mounting brackets, jumper bend limiters, labels for identifying fiber terminations.
   g. Wall mountable single panel housing shall be Corning SPH-01P and CCH 6 duplex SC connector adaptor panel, or approved equal.

2. UPC/SC Factory Terminated Fiber Connector and Pigtailed (Include Splice and Connector Sleeve)
   a. All fiber connectors used on this project, including in shelves, cabinets or panels, shall be factory installed connectors.
   b. No field terminated connectors will be allowed.
   c. Connectors shall be SC/UPC having a specified typical insertion loss (single-mode) of 0.15 dB or less, a maximum loss of 0.35 dB or less, with typical reflectance of 65 dB, and temperature stability from -40 degrees C to 75 degrees C.
   d. Fiber used for pigtailed must be of the same manufacturer as the main fiber cable.
   e. Pigtails shall be rated for the environment they are installed in.
f. Pigtails shall be spliced in accordance with the splicing specifications and in fiber shelves or panels using manufacturer splice organizers.

A. Construction.

1. General.

a. Install cabinets in accordance with the Contract Documents and the manufacturer's recommendations.

b. Do not penetrate the top of any cabinets without prior authorization by the Engineer.

c. Do not allow screws used for mounting shelves or other mounting purposes to protrude beyond the outside wall of the cabinet.

d. All exterior connections shall be watertight.

e. Contact the Engineer a minimum of one week in advance to arrange a field review prior to placing the cabinets.

2. Fusion Splices.

a. See Appendix A of these special provisions for diagrams showing fibers to be spliced.

b. Fusion splices shall be used to splice all continuous fiber runs in splice closures and factory terminated connector pigtails.

c. Splices shall be allowed only in the splice closures as located on the plans.

d. Maximum attenuation per splice as estimated by the fusion splicer shall not exceed 0.02 dB. Any splice exceeding 0.02 dB at the time of splicing shall be re-spliced.

e. Splice shall provide three axis core alignment using light injection and loss measurement techniques.

f. No mechanical splices of fiber cable will be allowed.

g. All fusion splice equipment shall be factory serviced within the last year. The Contractor shall provide copies of factory service ten days prior to splicing.

f. Maintain on site at all times all materials necessary to immediately install temporary and/or permanent repairs to active fiber damaged during the course of work, including availability of additional splicing equipment.


a. Ensure sufficient clamps, nuts, hardware, etc., as required for the specified mounting type.

b. Seal all conduit openings in the marker using ETCO duct plugs or as directed by the Engineer.

B. Method of Measurement and Basis of Payment.

1. Measurement and payment for device cabinets shall be paid for at the contract unit price per each for the pay item “INTERCONNECT CENTER”, “FIBER OPTIC PIGTAIL”, “FIBER OPTIC JUMPER”, and “FUSION SPLICE”.

2. Payment is full compensation for:

- Including all internal components and accessories required to provide a complete cabinet installation per the Contract Documents,
- Providing and installing all mounting materials, cable pulling, routing and management, cable termination, and all necessary electric grounding materials, and
2.05. **Wire and Cable.**

**A. Materials.**

1. **Power Wire.**
   
   Single conductor, stranded copper, Type XHHW, black colored jacket in sizes listed in the Contract Documents.

2. **Ground Wire.**
   
   a. Use soft drawn wire meeting the requirements of ASTM B 3, or medium hard drawn wire meeting requirements of ASTM B 2.
   
   b. Use solid wire for grounding/bonding jumpers and stranded wire for ground wires running with power wire. Ensure stranding meets the requirements of ASTM B 8, Class B.

3. **Tracer Wire.**
   
   Single conductor, solid copper or copper clad steel, Type XHHN, No. 12 AWG with orange colored jacket.

4. **Grounding/Bonding.**
   
   Ground all installations using a No. 6 AWG copper, non-insulated wire bonded to copper clad metal, driven electrodes using an exothermic weld.

**B. Construction.**

1. **General.**
   
   a. All installations and connections shall comply with the Contract Documents and all generally accepted codes and standards.
   
   b. Install cable connectors in accordance with Contract Documents at the base of all breakaway poles, cabinets, or other installations for all non-low voltage installations unless otherwise directed by the Engineer. Cable connectors shall be unfused and listed for the specific application. All costs associated with these connectors are incidental to the cost of the connected items of work.
   
   c. The Engineer shall resolve all conflicts.

2. **Handholes**
   
   a. Install pull boxes or handholes as described in City of Tulsa Standard Specification 601.
   
   b. Size of pull box shall be either "Type III" or "Splice Vault"
   
   c. Splice Vault sized pull boxes are detailed in the plans and shall be installed in a similar manner to Type III pull boxes.

3. **Tracer Wire.**
   
   a. Install, splice, and test for continuity tracer wire in all conduit installations as indicated on the Contract Documents.
   
   b. Where new tracer wires are installed, the Contractor shall:
(1) Splice tracer wire only in handholes, cabinets, and pole bases to form a continuous network using splice kits listed for wet locations.

(2) Terminate each tracer wire run at Pull Boxes before entering marker.

(3) Test all tracer wire for continuity.

c. Labeling Requirement
   Tags shall clearly identify where each individual cable run originated and where it ends (handhole to handhole, handhole to cabinet, handhole to building, etc.).

   a. Ground all installations as indicated in the Contract Documents.
   b. Installation of grounds is incidental to the cost of the connected items of work.
   c. Ground all installations in accordance with the requirements of NEC. Supply and install additional grounding rods and equipment as necessary to satisfy such requirements at no additional cost to the City of Tulsa.

C. Method of Measurement and Basis of Payment.
   1. Measurement and payment for all wire shall be paid for at the contract unit price per linear foot for the pay items, “#8 POWER”, “#8 GROUND”, #6 GROUND, “PULL BOX SIZE TYPE III”, “PULL BOX SIZE SPLICE VAULT”, and “TRACER WIRE”.
   2. Payment is full compensation for:
      - The furnishing and installation of all wire and cable,
      - Including the proper installation of the wire and cable into existing conduit and new conduit systems, supply and installation of splices and connectors, and slack, coiled, or stored wires or cables, and
      - Furnishing all materials, labor, equipment, and other incidental items necessary to meet the requirements of the Contract Documents.
      - Prior to final acceptance, the Contractor shall meet with the Engineer to demonstrate the locate system is working properly throughout the entire locate system.

2.06. Fiber Optic Cable.

A. Materials.
   1. General.
      a. The cable shall meet the latest applicable standard specifications by American National Standards Institute (ANSI), Electronic Industries Association (EIA) and Telecommunications Industries Association (TIA) for the single-mode fiber cable of the size specified per the plans.
      b. The fiber should be 12-stand single-mode, loose tube armored cable for installation.
      c. The contractor shall conduct OTDR testing of each fiber prior to acceptance of the fiber. Once acceptance testing is completed successfully, the contractor will be responsible for the fiber optic cable and replacement if damage occurs.
      d. The Contractor shall provide the Engineer the manufacturer's production test provided with the spool.
      e. The Contractor shall provide the City of Tulsa with documentation of wasted cable.
f. The buffer tubes shall be compatible with standard hardware and shall have 12 fibers per tube, the fibers shall not adhere to the inside of the buffer tube, each fiber shall be distinguishable by means of color coding in accordance with TIA/EIA-598-B “Optical Fiber Cable Color Coding” and be colored with ultraviolet (UV) curable ink.

g. The cable core shall be water blocked with dry water blocking materials to improve access and handling of individual tubes.

h. The cables shall be designed for point-to-point applications as well as mid-span access, and provide a high-level of protection for fiber installed in the outside plant environment.

i. The optical fiber shall be fully capable of handling existing and legacy single-mode applications which traditionally operate in the 1310 nm and 1550 nm regions and shall also be designed to operate the full-spectrum from 1260 nm to 1625 nm for optical transmission.

j. The optical fiber shall be designed to provide optimum performance from 1260 nm to 1625 nm intended for 16-channel Course Wavelength Division Multiplexing applications.

k. The optical fiber shall be manufactured by Corning, OFS or Draka.

l. The MDPE jacket material shall be as defined by ASTM D1248, Type II, Class C, Category 4 and Grades J4, E7 and E8.

m. The jacket or sheath shall be free of holes, splits, and blisters.

n. Cable jackets shall be marked with the manufacturer’s name, month, and year of manufacturer, sequential foot markings, the symbol for communication cable as required by Section 350G of the National Electrical Safety Code (NESC), fiber count, and fiber type. The actual length of the cable shall be within -0/+1% of the length markings. The print color shall be white, with the exception that cable jackets containing one or more coextruded white stripes, which shall be printed in light blue. The height of the marking shall be approximately 2.5 mm.

o. The maximum pulling tension shall be 2700 N (600 lbf) during installation (short term) and 890 N (200 lbf) long term installed.

p. The shipping, storage, and operating temperature range of the cable shall be -40°C to +70°C. The installation temperature range of the cable shall be -30°C to +70°C.


a. Fiber optic, single-mode, graded loose tube dielectric cable constructed with industry standard 3 mm buffer tubes stranded around a central strength member.

b. Single-mode, dispersion-unshifted fiber meeting ITUT G.652D requirements.

c. Cables shall be sheathed with medium density polyethylene (MDPE). The minimum nominal jacket thickness shall be 1.3 mm. Jacketing material shall be applied directly over cable core and water swellable tape. The polyethylene shall contain carbon black to provide ultraviolet light protection and shall not promote the growth of fungus.

d. The cable jacket shall contain no metal elements and shall be of a consistent thickness.

B. Construction.

1. General.

a. Remove fiber optic cable from the reel in a manner acceptable to the manufacturer and Engineer.
b. Do not twist or bend the fiber optic cable in excess of the limits recommended by the manufacturer.

c. As the cable is fed into the duct and conduit system the Contractor shall use a manufacturer approved water-based cable lubricant for all fiber optic cable installations.

d. Protect at all times all proposed cables, cable ends, and any exposed portions of fiber optic cable from damage including water intrusion.

e. Any existing pull tape or tracer wire that is used as a pull rope for fiber optic cable installation shall be replaced in kind, unless noted otherwise on the plans. The cost of any tracer wire or pull tape replacement shall be subsidiary to the fiber optic cable installation.

2. Fiber Optic Cable Testing.

a. Visually inspect fiber optic cable prior to installation. Report any defects to Engineer.

b. Pre-installation (on-reel), all strands of fiber shall be tested (uni-directional) with an Optical Time Domain Reflectometer (OTDR) at 1310 nm and 1550 nm to verify attenuation, continuity and length of the cable. Measured length by the OTDR shall match manufacturer cable foot markings plus manufacturer provided helicity. The contractor shall perform all tests in the presence of the Engineer and provide the Engineer with up to two copies of any software required for viewing electronic files of the OTDR traces. Fiber test results submitted to the Engineer that exceed the max attenuation loss specification will be identified as Out of Specification.

c. The fiber optic cable is to have a maximum attenuation of 0.4 dB/km at 1310 nm and 0.3 dB/km at 1550 nm when measured with an OTDR. Fiber test results submitted to the Engineer that exceed the max attenuation loss specification will be identified as Out of Specification.

d. All test equipment shall be factory certified within the last year. The Contractor shall provide copies of the certification ten days prior to testing.

e. Test results will be recorded on a form supplied by the Contractor, with data compiled in PDF format through the meter manufacturer’s software. No additional alteration using software from the Contractor beyond the meter manufacturer’s software will be allowed. The Contractor shall submit test results in a format approved by the Engineer. Completed test forms on each fiber shall be handed over to the Engineer. Contractor shall also provide native test (electronic version) with no alterations and meter software for viewing of fiber traces. At a minimum, test results shall show the following:

- Cable and fiber identification (as approved by City of Tulsa).
- Operator Name.
- Date and Time.
- Setup and test parameters including wavelength, pulse width, range, scale and ambient temperature.

f. OTDR testing shall use a launch and receiving cable. Each cable shall be a minimum 1,000 meters, or greater than the dead zone for the OTDR used for this test, whichever is larger.

3. Cable Installation.
a. A suitable cable feeding method shall be used between the cable reel and the face of the duct and conduit to protect the cable and guide it into the duct.

b. Dynamometers and breakaway pulling swings shall be used to ensure that the pulling line tension does not exceed 600 lbf (2669 N).

c. The mechanical stress placed on a cable during installation shall not be such that the cable is twisted or stretched. A pulling eye and swivel shall be attached to the cable and used to install the cable through the duct conduit system to prevent the cable from twisting.

d. Cables shall not be forced around sharp corners and precautions shall be taken during installation to prevent the cable from being kinked or crushed.

e. Minimum bending radius during installation shall not be less than 20 times the outside diameter of the cable or as recommended by the manufacturer, whichever is greater.

f. Pulling of the cable shall be hand assisted.

g. Approved installation methods include Pulling, High Air Speed Blowing, Air-Assist, Push/Pull Installation, and Air Blown Cable. Installation must comply with all manufacturers' recommendations for cable installation including pulling tensions, bending radii and methods, including use of rollers.

h. The cable shall be carefully inspected for jacket defects. If defects are noticed, the pulling operation shall be stopped immediately and the Engineer notified. The Engineer shall make a determination of acceptability or shall reject the cable.

i. The fiber cable shall be installed in continuous runs as marked on the plans. End of reel splices or butt splices not shown in the plans shall be pre-approved by the Engineer and are incidental to the cost of the installation of the cable. If approved, the end of reel or butt splices shall be performed in existing Type IV handholes as shown on the plans. The cost associated with the end of reel or butt splices including splice closures, storage baskets, splice trays, protective sleeves, and all accessories shall be included in their respective items and shall not result in additional cost to City of Tulsa.

j. No splices shall be allowed unless indicated by the plans or approved by the City of Tulsa.

k. Seal all conduit openings using ETCO duct plugs, or as directed by the Engineer, at all conduit openings at the pull boxes, and markers after cable installation.

4. Facilities Protection.

a. In the event it is suspected that cable damage has occurred prior to final acceptance, Contractor shall test the cable with an OTDR within seventy two (72) hours after notification and submit a copy of the OTDR test to the Engineer upon completion.

b. Contractor shall replace or repair, as directed by the Engineer, any damage occurring before final acceptance at no additional cost to the City of Tulsa. Perform any repairs or replacements as soon as reasonably possible unless otherwise approved by the Engineer.

c. Contractor shall repair or replace any defect in the installed cable at no additional cost to the City of Tulsa. Consider a defect to be any condition resulting in a negative or adverse effect on current or future operations of the completed fiber optic communication system as determined by the Engineer.

d. Any existing wiring that is damaged during fiber optic cable installation shall be replaced or repaired, as directed by the Engineer, at no additional cost to the City of Tulsa.
5. Slack Coils.
   a. Sufficient slack shall be left at each end of the cable to allow proper cable splicing and termination. The minimum slack amount shall be as follows or as indicated in the plans:
      • Pull Box Size II - 50 feet
   b. Storage of slack cable in cabinets and handholes shall be neatly coiled. The slack coils shall be bound at a minimum of three (3) points around the coil perimeter.
   c. Secure and support cables at intervals not exceeding 30 inches and not more than 6 inches from cabinets, boxes, fittings, outlets, racks, frames and terminals.
   d. For storage purposes, the minimum bending radius shall not be less than ten (10) times the outside diameter of the cable or as recommended by the manufacturer, whichever is greater.

6. Cable Identification.
   a. Place tags on all fiber optic cable identifying the owner and direction of the cable.
   b. Tags shall clearly identify where each individual cable run originated and where it ends (handhole to handhole, handhole to cabinet, handhole to building, etc.).
   c. Handwritten tags are not allowed.
   d. Tags shall use indelible ink or etching which does not fade in sunlight, or in buried or underground applications.
   e. Tags shall be of a material that does not become brittle or deteriorate for a period of 20 years due to moisture, sunlight, soil minerals, chemicals or other environmental elements.
   f. Engineer shall approve tag content before installation.
   g. For fiber installations with joint Department of Transportation/other agency (or entity) use where the fiber will be owned by the other agency (or entity), install typical identifiers and/or markings for that fiber.

C. Method of Measurement and Basis of Payment.
   1. Measurement and payment for all fiber optic cable installation shall be paid for at the contract unit price per linear foot for the pay items "12 SM FIBER OPTIC CABLE".
   2. Fiber optic cable length is calculated from plan dimensions as the linear, one-way length of new and existing conduits. No allowance has been added to this quantity.
   3. Payment is full compensation for:
      • The furnishing, testing, and installation of all cables and wire per the Contract Documents,
      • Furnishing all materials, labor, tools, consumable items and other incidental items necessary to meet the requirements of the Contract Documents.

2.07. Pull Tape.

A. Materials.
   1. Pull tape shall be clearly marked with durable, sequential footage markings.
   2. Pull tape shall have a minimum proper tensile strength of 600 pounds.
B. Construction.
   1. All installations and connections shall comply with the Contract Documents and all
generally accepted codes and standards.
   2. Pull tape shall be installed in continuous runs between handholes, foundations, and
structures as shown on Contract Documents.

C. Method of Measurement and Basis of Payment.
   1. Measurement and payment for all pull tape shall be incidental to the cost of conduit.

ACCEPTANCE CRITERIA

3.01 Fiber Optic Cable Acceptance Testing.

A. Materials.
   None

B. Construction.

1. Fiber Optic Cable Acceptance Testing Methods.
   a. Post installation, all strands of all fiber cables shall be tested (uni-directional) with an
      Optical Time Domain Reflectometer (OTDR) at 1310 nm and 1550 nm to verify
      attenuation, continuity and length of cable. The contractor shall perform all tests in the
      presence of the Engineer and provide the Engineer with up to two copies of any
      software required for viewing electronic files of the OTDR traces.
   b. Measured length by the OTDR shall match manufacturer cable foot markings plus
      manufacturer provided helicity.
   c. Fiber test results submitted to the Engineer that exceed the max attenuation loss
      specification will be identified as Out of Specification.
   d. The fiber optic cable is to have a maximum attenuation of 0.4 dB/km at 1310 nm and
      0.3 dB/km at 1550 nm when measured with an OTDR. Fiber test results submitted to
      the Engineer that exceed the max attenuation loss specification will be identified as
      Out of Specification.
   e. Each splice shall have an averaged loss value of 0.07 dB or less when measured bi-
      directionally with an OTDR at 1310 nm and 1550 nm. Fibers not meeting the 0.07 dB
      or less specification will be identified as Out of Specification.
   f. Contractor shall replace, as directed by the Engineer, any defect discovered during
      final acceptance at no additional cost to the City of Tulsa. Consider a defect to be any
      cable with an OTDR measured length that differs from the actual cable footage,
      excluding manufacturer’s helicity or with attenuation loss on any fiber that exceed the
      max attenuation loss.
   g. All test equipment shall be factory certified within the last year. The Contractor shall
      provide copies of the certification ten days prior to testing.
   h. Test results will be recorded on a form supplied by the Contractor, with data compiled
      in PDF format through the meter manufacturer’s software. No additional alteration
      using software from the Contractor beyond the meter manufacturer’s software will be
      allowed. The Contractor shall submit test results in a format approved by the Engineer.
Completed test forms on each fiber shall be handed over to the Engineer. Contractor shall also provide native test (electronic version) with no alterations and meter software for viewing of fiber traces. At a minimum, test results shall show the following:

- Cable and fiber identification (as approved by City of Tulsa).
- Operator Name.
- Date and Time.
- Setup and test parameters including wavelength, pulse width, range, scale and ambient temperature.

i. OTDR testing shall use a launch and receiving cable. Each cable shall be a minimum 1000 meters, or greater than the dead zone for the OTDR used for this test, whichever is larger.

C. Method of Measurement and Basis of Payment.

1. Measurement and payment for fiber optic acceptance testing shall be paid for at the lump sum contract unit price for the pay item "FIBER OPTIC ACCEPTANCE TESTING".

2. Payment is full compensation for:
   a. The furnishing of all test equipment.
   b. Furnishing labor, tools, testing equipment, consumable items, and incidentals necessary to complete all acceptance testing satisfying the requirements of the Contract Documents.
SPECIAL PROVISIONS
FOR HOT MIX ASPHALT

DESCRIPTION

This work shall consist of furnishing and placing Hot Mix Asphalt.

MATERIALS

Hot Mix Asphalt shall conform to Section 708, Plant Mix Bituminous Bases and Surfaces, of the Oklahoma Department of Transportation (ODOT) Standard Specification for Highway Construction, Current Edition, with the following modifications to Table 708:6

<table>
<thead>
<tr>
<th></th>
<th>S3</th>
<th>S4</th>
<th>S5</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of mix mass</td>
<td>5.0</td>
<td>6.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>

(greater than or equal to)

Submittals shall be delivered to the City of Tulsa at a date set by the Engineer. Submittals shall include the test results of the physical properties of the aggregate and asphalt cement as outlined in ODOT Specification 708.
SPECIAL PROVISIONS
FOR SPECIAL SPECIFICATION
OF HANDICAP RAMP

This work shall consist of the construction of concrete handicap ramps in reasonable close conformity with the location, lines and grades shown on the Standard Drawing for "Typical Curb Ramp" or established by the Engineer.

Materials and Methods of Construction shall meet ODOT specification 610.02 and 610.04 of the standard specifications.

The subgrade for ramps shall be compacted to a density of 90% standard density for depth of 6".

The minimum thickness of concrete on any portion of the ramp shall be 6" except in that portion of the ramp which extends over the pavement, which shall be 8".

The handicap ramp shall be flush where it meets the street. This will supersede the standard drawing.

The handicap ramps shall be installed according to City of Tulsa Standard Drawing No. 790—Standard Sidewalk Ramp.

Construction of handicap ramps will be measured by each ramp and shall be paid for at the contract unit price for:

HANDICAP RAMP EA.

Which shall be full compensation for performing the work specified and the furnishing of all materials, labor, tools, equipment and incidental necessary to complete the work as specified. Aggregate base, truncated domes and pipe railing, if necessary, shall be paid for separately.
SPECIAL PROVISIONS
FOR SPECIAL SPECIFICATION
OF HIGH EARLY STRENGTH CONCRETE

DESCRIPTION
This work shall consist of furnishing and placing, High Early Strength Concrete.

MATERIALS
High Early Strength Concrete shall conform to Section 701, Portland Cement Concrete, of the Oklahoma Department of Transportation (ODOT) Standard Specification for Highway Construction, Current Edition, with the following modifications:

- Air Content: 5-7 percent
- Maximum Water - Cement Ratio: 0.41
- Slump: 1-3 inches

Batching shall measure the weights of each material required within a tolerance of one percent for cement and two percent for aggregates (account for moisture content). The quantity of water used shall be within plus or minus one percent of that required by the design. Water may be measured either by volume or by weight. All materials shall be used in strict accordance with the manufacturer's recommendations.

Submittals shall be delivered to the City of Tulsa at a date set by the Engineer. Submittals shall include the items outlined in ODOT Specification 701.03.

CONSTRUCTION METHODS
The concrete shall be mixed between 70 to 100 revolutions of the ready-mix truck. Mixing shall be in a mechanical mixer capable of combining the aggregates, cement, and water into a thoroughly mixed and uniform mass within the manufacturer's specified mixing period. There shall be no water in the mixing drum prior to adding the aggregates.
TESTING

Following are the testing requirements for the High Early Strength Concrete mix:

Compressive Strength:\(^1\)  
- 2,500 pounds per square inch (psi) – 12 hours
- 3,000 psi – 24 hours

Slump:  
- 1 inch minimum
- 3 inches maximum

Air Content:  
- 5-7 percent

---

\(^1\) During cool weather (less than 50 degrees Fahrenheit), specimens shall be cured in a fully insulated closed box.

During moderate weather (between 50°F and 80°F), specimens shall be cured in both open and fully insulated closed boxes with compressive strength tests performed on specimens from each curing box.

During warm weather (greater than 80°F), specimens shall be cured in a closed box placed in a shaded area.
SPECIAL PROVISIONS

INTERNAL MILESTONES / CONSTRUCTION SEQUENCE

1. The project has been divided into three Phases - Phase 1, Phase 2, and Phase 3. The contractor shall begin the work in Phase 1. The work on Phase 2 or Phase 3 shall be done as the final phase.

2. The contract has a total of 730 calendar days in which to complete the work included in the Total Base Bid. If Add Alternate No.1 is awarded there will be zero calendar days added. 250 calendar days are included for material acquisition before the start of construction.

3. The work included in Phase 1 shall be totally completed within 480 calendar days. If the contractor shall fail to totally complete all the work in Phase 1 within the specified time, the contractor agrees to pay the City, not as a penalty, but as a disincentive for Breach of Contract, the sum of Two Thousand Five Hundred Dollars ($2500.00) for each and every calendar day for failure to complete the work in the area within the time specified.

4. The work included in Phase 2 shall be totally completed within 210 calendar days. If the contractor shall fail to totally complete all the work in Phase 2 within the specified time, the contractor agrees to pay the City, not as a penalty, but as a disincentive for Breach of Contract, the sum of Two Thousand Five Hundred Dollars ($2500.00) for each and every calendar day for failure to complete the work in Phase 2 within the time specified.

5. The work included in Phase 3 shall be totally completed within 120 calendar days. If the contractor shall fail to totally complete all the work in Phase 3 within the specified time, the contractor agrees to pay the City, not as a penalty, but as a disincentive for Breach of Contract, the sum of Two Thousand Five Hundred Dollars ($2500.00) for each and every calendar day for failure to complete the work in Phase 3 within the time specified.

6. For determining disincentive payments, the work shall be considered totally complete when there is no work for the contractor to do, all of the punch list items are finished, and the contractor has moved off of the site.

7. Should the contractor fail to complete all the work within the time specified, the disincentive from the final work area and liquidated damages shall run concurrently.
SPECIAL PROVISIONS
FOR JOINT / CRACK SEAL OF PCC STREETS WITH SILICONE

All joints from ¼" wide to 1" wide shall be sawed, blown and filled with silicone in accordance with ODOT Specifications 419. All random cracks shall be cleaned by suitable tools (no routing), blown and filled with silicone that meets ODOT specification 701.08G.

Sealing Instructions:

All aspects of the material application shall as a minimum meet the specifications of ODOT 701.08G. When material covered by that specification is used for maintenance or resealing of joints that have previously contained either similar or dissimilar sealing material, it is required that the joint be dry, cleaned thoroughly with a plow, wire brush, concrete saw, or other suitable tool or tools that are designed for the purpose of neatly cleaning pavement joints. Loose material shall be blown out. The sidewalls of the joint space to be sealed shall be thoroughly sandblasted, blown free of loose sand with high-pressure air and then sealed with sealant. If the manufacturer of the sealant has specifications that exceed those of ODOT 701.08G, then the manufacturer’s specifications will be used.

Joint Shape Requirements:

Specifications for the dimensions of joints and cracks shall be the same as those recommended by the sealant manufacturer.

Sealant Material:

The construction of concrete joint rehabilitation shall meet the requirements of ODOT 701.08. “Joint Fillers and Sealers”, except that the sealant material for concrete joint/crack rehabilitation shall meet or exceed the requirements of ODOT 701.08G.

Method of Measurement:

Concrete joint rehabilitation and concrete crack seal will be measured by the linear feet of joints/cracks that are sealed, excluding the areas that are patched.

Basis of Payment:

The accepted quantities measured as provided above will be paid for at the Contract unit price for Crack and Joint Sealer by the linear feet of joints/cracks that are sealed, excluding the areas that are patched, which shall be full compensation for furnishing all materials, equipment, labor and incidentals to complete the work specified. All sawing necessary for sealing shall be included in the cost of the sealant where used.

JCSPC-1
Approval of Joints: At the City of Tulsa's request, a representative of the sealant supplier will be on site at the beginning of the final cleaning and sealing of the joint to demonstrate to the Contractor and to Inspection the acceptable standard for installation of the sealant. No sealing shall commence until the manufacturer's representative has approved the joints. Failure of the sealant to bond to the joint/crack surfaces will be cause for rejection and repair shall be at the Contractor's expense.

Concrete Curb: Concrete curb and combined curb and gutter to be removed and replaced shall receive joints per ODOT specification 609.04(e) and be sealed with silicone. Costs for joints and sealer to be included in the unit price bid for concrete curb and gutter. The sealant for the curbs shall meet the requirements of ODOT 701.08F.

Submittals: No work shall begin until the Contractor has submitted the following to the City as a minimum:

A. Manufacturer’s Material Specifications
B. Manufacturer’s Installation Specifications
C. Manufacturer’s Joint/Crack Dimension Specifications
D. A 3 Year History of Sealing Projects
SPECIAL PROVISION
MINIMUM ASPHALT RETAINED STRENGTH ✓

This Special Provision revises, amends, and where in conflict, supersedes applicable sections of the 2019 Oklahoma Department of Transportation Standard Specifications for Highway Construction, (ODOT).

The “% Retained Strength, min.” for asphalt as listed in ODOT Section 708 TABLE 6A “PROPERTIES OF LABORATORY MOLDED SPECIMENS” shall be 80%.
SPECIAL PROVISIONS
FOR SPECIAL SPECIFICATION
OF TYPE I MONUMENT PAYMENTS

Under this item, the Contractor shall furnish and place for the payment requested for each monument, all materials, labor, equipment, and incidentals necessary to complete the work as shown on the sketch on the following page. The brass marker shall be provided by the City. The 5/8 inch rebar shall be a minimum of 36 inches in length. The locations will be as ordered by the Engineer.

Materials will be in accordance with Section 626.02 of ODOT's Standard Specifications for Highway Construction, current addition, with Accelerated High Early Strength Concrete substituted for Portland Cement Concrete.
The “Owner Allowance” may be used for various work and miscellaneous items not specifically identified in the Contract Documents with the following provisions:

A. The allowance shall be used for cost of design and construction, including all materials, labor, equipment, profit and overhead, of work items not specifically identified in the Construction Documents, or included in original pay items bid for the contract.

B. The allowance shall be utilized only at the discretion of the City of Tulsa. Any balance remaining at the completion of the Project will be retained by the City of Tulsa.

C. The Contractor shall provide, to the City of Tulsa, a written request for the use of any allowance, including a schedule of values and associated backup information, including validity of need, materials, labor, equipment, and time required to perform the associated work.

Contractor shall proceed with the allowance work only after receiving written permission from the City of Tulsa. Proceeding with associated allowance work without written permission from the City of Tulsa will be at the Contractor’s sole expense.
SPECIAL PROVISIONS
FOR PATCHING OF CONCRETE AND ASPHALT STREETS

The City of Tulsa Standards for street cut and repair shall be followed for materials and procedures except as modified here.

Patching
Instructions: Portland Cement concrete patches will be protected from all traffic for a period of 24 hours before removal of protective devices. Sawing of the patches is required. The area to be removed shall be marked by the Contractor under the direction of the Resident Inspector. The Contractor will provide personnel and equipment for making of patches as directed by Resident Inspector. When completed, the patch shall be level and provide a smooth riding surface. All asphalt patch work will require that asphalt rollers and an asphalt laydown machine be available for use on the job as directed by the engineer. The minimum size of any patch shall be 3' x 3'.

Testing of
Materials: The frequency of testing shall be as follows:

- Subgrade Compaction: A minimum of one (1) density test of the subgrade shall be done per patch.

- Concrete: Three cylinders shall be taken from every 50 cubic yards of concrete and tested for compressive strength.

- Asphalt: Compaction and extraction tests shall be taken a minimum of every 50 tons of asphalt.

Weather Limitations: The minimum temperature of the foundation course on which asphalt concrete may be laid shall be as shown in the following table:

<table>
<thead>
<tr>
<th>Compacted Lift Thickness (inches)</th>
<th>Surface Temperature (minimum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 or more</td>
<td>40° F</td>
</tr>
<tr>
<td>1 ½ to 3</td>
<td>45° F</td>
</tr>
<tr>
<td>less than 1 ½</td>
<td>50° F</td>
</tr>
</tbody>
</table>

Asphalt
Materials: All asphaltic concrete used for this Project shall meet the specifications of ODOT Section 708. Under the paragraph, “Course Aggregates”, the
following sentence shall be added: When tested for soundness, the number of cycles shall be five (5), the solution shall be Na2 SO, the maximum loss shall be 10%.

Type I Patch
Subgrade Replacement: Shall consist of the removal of subgrade material as measured from the bottom of the existing pavement. The removed subgrade material shall be replaced with separator fabric meeting the requirement of ODOT Section 325 and aggregate material meeting the requirement of ODOT Section 703.01 Type “A”. The existing subgrade shall be compacted to 95% standard proctor density per AASHTO T-99 and the aggregate material shall be compacted to 98% modified proctor density per AASHTO T-180-86 Method as measured by the Nuclear Density Method. Compaction shall be done with a roller or vibratory hand tamper. Certain situations may require substitution of Quick-set Fill Concrete for aggregate material. Fill concrete specifications are shown on the Standards for Pavement Cut and Repair. Separator fabric shall be used at all full depth pavement patches where aggregate base is required, as directed by the Engineer. The fabric shall be cut or overlapped to fit the size of the patch. These items will be paid separately from the bid item for patching.

Type A Aggregate Base: This material shall have the following gradation, which is ODOT Section 703-01 Type “A”.

<table>
<thead>
<tr>
<th>Sieve (mm)</th>
<th>% Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1/2 in. (37.5)</td>
<td>100</td>
</tr>
<tr>
<td>3/4 in. (19.0)</td>
<td>40 – 100</td>
</tr>
<tr>
<td>3/8 in. (9.5)</td>
<td>30 – 75</td>
</tr>
<tr>
<td>No. 4 (4.75)</td>
<td>25 – 60</td>
</tr>
<tr>
<td>No. 10 (2.00)</td>
<td>20 – 43</td>
</tr>
<tr>
<td>No. 40 (0.425)</td>
<td>8 – 26</td>
</tr>
<tr>
<td>No. 200 (0.075)</td>
<td>4 – 12</td>
</tr>
</tbody>
</table>

Type I Patch in PCC Pavement: When the patch is made in PCC, the pavement shall be cut with a concrete saw full depth before removal of existing pavement. The area to be patched shall be delineated in a straight-line geometric pattern. Placement of the subgrade stabilization material shall be in accordance with the paragraph; “Type I Patch Subgrade Replacement”. After
placement of the subgrade stabilization, the pavement shall be replaced with Class A High Early Strength concrete containing 4 to 6 percent air entrainment. The concrete shall have a maximum 3” slump. The concrete shall be placed in accordance with the detail in the drawings titled “Type I PCC Patch”. The new concrete shall have a flat finish and match the grade of the adjacent pavement. Existing joint patterns shall be reestablished and sealed as specified. The concrete shall be sprayed with curing compound and protected from traffic a minimum of 24 hours. Cold Joints around the perimeter of the patch shall be sawed and sealed with silicone in accordance with ODOT specification 701.08(E). All sawing, pavement removal, and sealing costs shall be included in the bid item for patching, H.E.S. concrete.

Type I Patch in Asphalt Pavement: When the patch is made in asphalt, the pavement shall be cut with a concrete saw full depth before removal of existing pavement. The area to be patched shall be delineated in a straight-line geometric pattern. Placement of the subgrade stabilization material shall be in accordance with the paragraph; “Type I Patch Subgrade Replacement”. After placement of the subgrade stabilization material, the pavement shall be replaced in accordance with the detail in the drawings titled “Type I AC Patch”, a minimum of 8” or existing paving thickness, whichever is greater. All asphalt materials shall meet the specifications of ODOT 708 Plant Mix Bituminous Bases and Surface. The asphalt shall be placed and compacted in maximum 3” lifts. The edges of the patch shall be tacked prior to the placement of asphalt. The asphalt shall be compacted to 92% minimum density as determined by AASHTO T-209 Method. The patch shall be stringlined as required and all areas not matching the adjacent grade shall be immediately corrected. Cold joints around the perimeter of the patch shall be sawed and sealed with rubberized asphalt. All sawing, pavement removal, replacement, and sealing costs shall be included in the bid item for patching, AC.

Type I Patch in APC Pavements: Patching of PCC pavements with an asphalt overlay shall be performed as follows: Placement of the asphalt portion of the patch shall be in accordance with the paragraph “Type I Patch in Asphalt Pavements”. Placement of the PCC portion of the patch shall be in accordance with the paragraph “Type I Patch in PCC Pavements”. Placement of the subgrade stabilization material shall be in accordance with the paragraph “Type I Patch Subgrade Replacement”. After placement of the subgrade stabilization material, the pavement shall be replaced in accordance with.
the detail in the drawings titled "Type I APC Patch". Payment will be made separately for each of the three materials: Type “S4” AC, H.E.S. PCC and Aggregate Base. Initial sawing, pavement removal and sealing costs shall be included in the bid items for patching as listed above. Additional sawing required to go from a Type “III” to a Type “I” patch shall be included in the bid items for H.E.S. PCC.

Type II Patch
In APC Pavement: The asphalt overlay shall be removed prior to sawing through the PCC Pavement to determine if only the asphalt needs to be patched. Sawing of the asphalt is required, but should not penetrate the PCC pavement. If the PCC pavement needs to be replaced, a Type “I” APC patch shall be made. Payment will be made for Type “S4” or Type “S5” AC only. If only the asphalt is removed, initial sawing, pavement removal, and sealing costs shall be included in the bid items for asphalt concrete.
SPECIAL PROVISIONS
FOR
PRICE ADJUSTMENT FOR ASPHALT BINDER

These Special Provisions revise, amend, and where in conflict, supersede applicable sections of the 2019 Oklahoma Department of Transportation Standard Specifications for Highway Construction. Units of measurements are provided in the subsections in both English and metric equivalents. The units for this project shall be those specified in the project plans.

(add the following:)

109.12 PRICE ADJUSTMENT FOR ASPHALT BINDER.
A price adjustment clause is included in this contract to provide additional compensation to the Contractor or a credit to the City of Tulsa for fluctuations in asphalt binder process. This price adjustment is dependant upon a change in the average price of asphalt binder which results in an increase or decrease in the price of products utilized on this project.

a) Payment will be made to the contractor for monthly fluctuation in the cost of asphalt binder used in performing the applicable items of Asphalt Concrete work as listed in the table below when the asphalt binder cost fluctuates by more than 3% from the base price defined below. Payments may be positive, negative, or nonexistent depending on the circumstances. Payments or deductions will only be calculated on that portion of the asphalt binder cost fluctuation that exceeds the 3% specified above. Payments or deductions for the asphalt binder cost adjustment will be included in the contractor’s progressive estimates; and the payments or deduction authorized for each estimate will be based upon the algebraic difference between the quantities for applicable items of work.

b) The Asphalt Binder Cost Adjustment (ACA) for the current estimate will be computed according to the following formula:

\[
ACA = Q \times F \times D
\]

Where

\[
ACA = \text{Asphalt binder cost adjustment, in dollars;}
\]

\[
Q = \text{The algebraic difference between the quantities for the applicable items on the current estimate and the quantities shown on the previous estimate, in tons of mix;}
\]

\[
F = \text{The Asphalt Binder Use Factor for the applicable items of work subject to this price adjustment, as listed in the following table, are:}
\]

PAFAB-1
<table>
<thead>
<tr>
<th>ITEM OF WORK</th>
<th>SPECIFICATION NUMBER</th>
<th>ASPHALT BINDER USE FACTOR PER UNIT (metric and U.S. Customary units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Concrete, Type S5</td>
<td>411</td>
<td>0.060 ton of binder per ton of mix</td>
</tr>
<tr>
<td>Asphalt Concrete, Type S4</td>
<td>411</td>
<td>0.060 ton of binder per ton of mix</td>
</tr>
<tr>
<td>Asphalt Concrete, Type S3</td>
<td>411</td>
<td>0.050 ton of binder per ton of mix</td>
</tr>
</tbody>
</table>

Note: When the units of measure in the contract for the Items of Work listed in the table do not correspond with the units shown in the table (i.e. Asphalt Concrete paid by the square yard, etc.), those Items will not be subject to the terms of this special provision or any asphalt binder price adjustment.

\[ D = \text{Allowable price differential, in dollars;} \]

The allowable price differential, "D" for the current estimate will be computed according to the following formulas:

When the current price, \( P \), is greater than the base price, \( P_(b) \).

\[ D = P - [1.03 \times P_(b)], \text{ but not less than zero.} \]

When the current price, \( P \), is less than the base price, \( P_(b) \).

\[ D = P - [0.97 \times P_(b)], \text{ but not greater than zero.} \]

In either case, \( P_(b) \) shall be the base asphalt binder price, in dollars per ton (mton), defined as the average of the minimum and maximum prices for performance-graded binder using the Selling Price of PG64-22 paving grade, F.O.B. manufacturer's terminal, as listed under "Midwest/Mid-Continent Market – Tulsa, Oklahoma/Southern Kansas area" as published in the last issue of Asphalt Weekly Monitor® furnished by Poten & Partners, Inc. for the month prior to the month in which the bids for the work were received.

In either case, \( P \), shall be the current asphalt binder price, in dollars per ton (mton), as defined above for the base asphalt binder price. The publication used will be the last issue published in the month prior to the month in which the progressive estimate is generated.

c) Items included in the contract that are listed in the table above are subject to the adjustment in accordance with this provision, regardless of any amount of overrun to the plan quantity. Any new items of work added to the contract by supplemental agreement that are listed in the table above, will be subject to the asphalt binder price adjustments in accordance with this provision. The base asphalt binder price, \( P_(b) \), for any newly added eligible items will be the same \( P_(b) \) as the eligible items in the contract and the new unit price established by supplemental agreement shall be determined accordingly.
SPECIAL PROVISION
FOR
PAVEMENT AND BRIDGE DECK SMOOTHNESS ✓
(ENGLISH)

These Special Provisions amend and where in conflict, supersede applicable sections of ODOT's 2019 Standard Specifications for Highway Construction, English and Metric. Units of measurement are provided in the subsections in both English and Metric equivalents. The units for this provision will be those English equivalents.

These Special Provisions apply to all types of Portland cement and asphalt concrete pavements as well as bridge decks constructed as part of this contract or as specified on the Plans.

430.01. DESCRIPTION.
This section establishes procedures for determining acceptability as it relates to smoothness requirements of pavements and bridge decks. The equipment and testing applicable to this Section shall be provided and/or operated by the party or parties designated by the City.

430.03. EQUIPMENT AND PERSONNEL.
Smoothness measurement equipment to be used for control and for acceptance testing shall include either The California Profilograph or The Lightweight Profilometer as described below. Such equipment shall be certified by the Department.

a) Profilograph. A California type profilograph produces a smoothness profilogram (or profile trace) of the surface tested. The equipment used shall be supported on multiple wheels having no common axle. The wheels shall be arranged in a staggered pattern such that no two wheels cross the same bump simultaneously. The profile is recorded from the vertical movement of a sensing wheel attached to the frame at the midpoint and is in reference to the mean elevation of the twelve points of contact with the road surface established by the support wheels.

The strip chart recorder shall be mounted on a lightweight frame 25 feet long. The relative smoothness/roughness of the pavement or bridge deck shall be measured by recording the vertical movement of a 6-inch or a larger diameter-sensing wheel attached to the midpoint of the frame.

The recorded graphical traces of the profile (termed the "profilogram") shall be on a scale of 1-inch equals 1 inch for the vertical motion of the sensing wheel. The profilogram shall be driven by the chart drive on a scale of 1 inch of chart paper equal to 25 feet of longitudinal movement of the profilograph.

b) Lightweight Profilometer. The profilometer equipment shall be mounted on a lightweight, motorized vehicle such as an All-Terrain Vehicle (ATV), Golf Cart, or
other approved vehicle. The vehicle profilometer equipment, and operator shall be capable of running on “green” concrete without causing damage. The profilometer equipment shall include an onboard, precision accelerometer which measures movement of the light weight and a non-contact vertical distance sensor mounted on the vehicle. The vertical distance sensor may be either infrared or laser type. The profilometer shall be capable of making all of the measurements and providing the information required in 430.04(b) “Evaluation” of this special provision. Additionally, the profilometer shall measure the road profile in accordance with ASTM E950-98, Class I.

c) Calibration. The profilograph or profilometer shall be calibrated within the following limits. Horizontal measurements shall be within ±5 feet per 1,000 feet of distance tested. Vertical measurements shall be the same as those of the calibration blocks measured. A profilograph and profilometer Calibration Report shall be submitted to the Engineer each time the calibration is performed. The calibration shall be performed no more than one week prior to collection of smoothness data and repeated at the Engineer’s direction at any time during the Project.

d) Profilograph or profilometer Operator. The City shall provide a profilograph or profilometer operator, certified by the Oklahoma Highway Construction Materials Technical Certification Board to perform all profilograph or profilometer measurements as well as interpreting and analyzing produced profilograms at no cost to the Contractor.

430.04. CONSTRUCTION.

a) Surface Testing. The Contractor shall provide traffic control as necessary for all smoothness measurements regardless of who provides and/or operates the equipment. The surface will be tested as soon as possible after completion of the work. For overlay projects when milling is not required, the surface will be tested immediately before construction and as soon as possible after completion of the work in order to determine the percent reduction in the profile index. Profilometer readings or profilograph traces are to be collected from 25 feet prior to the beginning point of a project, including any exception areas, and run continuously through all bridges and changes in the pavement types to a point 25 feet beyond the ending point of a project, including any exception areas.

Testing shall include all mainline paving and bridge decks. Smoothness deviations occurring at construction and expansion joints will be considered in calculations of profile index and in identification of bumps.

All objects and foreign material on the surface shall be removed by the Contractor prior to testing. Protective covers, if used, shall be removed prior to testing and will be properly replaced by the Contractor after testing. Testing for smoothness shall produce a final trace; a second trace shall be made on segments on which allowable surface corrections have been made.
The profilograph shall be propelled at a speed not to exceed 3 miles per hour. Data shall be gathered at lower speeds if the pavement or bridge deck is rough or profilograms are not being produced clearly.

The profilometer shall be operated at a constant speed as recommended by the manufacturer. The sequence of position of the pavement or bridge deck to be tested will be one pass per driving lane in the wheel path farthest from the edge of a pavement or bridge deck.

Additional profiles will be taken only to define the limits of an out-of-tolerance surface variation. The evaluations shall include graphical traces of the profiles and the disks from which they were derived. The testing and evaluation will be done by a trained and certified operator and the evaluation will be so certified. The City reserves the right to verify the testing and/or evaluation. In case of differences the City's results shall be considered final. If the Contractor's results are found to be significantly in error, the City may assess the cost of the verification efforts.

b) Evaluation.

1. **Profile Index.** Unless otherwise specified in Special Provision 431-3QA, a profile index shall be calculated from the profilogram for a pavement or bridge deck on 528 feet extents or entire lengths of bridges (including approach slabs) whichever is less. The index shall be calculated using a computerized profilogram reduction system. It is understood that stations reflected by automated profilogram interpretation systems are approximate and a further survey in the field may be required to establish bump locations. The index is calculated by summing the vertical deviations outside a 0.2-inch blanking band as indicated on the profile trace. The units of this measure (inches) will be converted into inches per mile. An extent is defined as the amount of pavement or bridge deck in a 528 feet or the entire bridge deck plus both approaches in length, whichever is less. When the quantity represented is less than a full extent in length, it will be combined with an adjacent extent or treated as a separate extent, at the option of the Contractor.

2. **Bumps.** Bumps will appear as high points on the profile trace and correspond to high points on the pavement or bridge deck surfaces. Unacceptable bumps are defined as those with vertical deviations in excess of 0.60 inch (without using a blanking band) in a 25-foot span.

3. The following will not be excluded from the smoothness requirements:
   (a) Shoulders
   (b) Ramps
   (c) Turn Lanes
(d) Acceleration, deceleration and climbing lanes less than 528 feet full width.

(e) Pavement with horizontal centerline curves with radii of less than 1000 feet and the super elevation transitions of such curves.

(f) In overlays only, areas in roadway within a 10 foot radius of existing inlets and utility covers. (This exception does not apply to full depth pavements.)

(g) Short isolated pavement areas, which by normal industry practice would require handwork.

Examples include driveway blockouts, phased intersection work with variable cross slope, etc.

For the above exceptions, the profile index and adjustments calculations corrections specified in this Special Provision, will not apply. However, the requirements for mandatory correction of bumps as defined in this Special Provision and tolerances defined in subsection 401.04 of the Standard Specification for Highway construction will remain in effect.

4. Special Evaluation Requirements. Bridge approach slabs will be evaluated in accordance with bridge deck smoothness requirements. New pavements and overlays within 25 feet of bridges or their approach slabs, 25 feet of beginning and ending stations of the Project, or 25 feet of changes from portland cement concrete to asphalt concrete or vice versa will not be excluded from profile index calculation. However, the requirements for mandatory correction of bumps as defined in this Special Provision and tolerances defined in subsection 401.04 of the Standard Specification for Highway Construction will remain in effect.

(c) Surface Correction. Unless otherwise permitted by the Engineer, in writing, all new pavements, overlaid pavements (with or without prior cold milling) and bridge deck surfaces having profile indices in excess of the acceptable limits of 13.0 in/mile for all streets and 27.0 in/mile for all bridges or having individual bumps with deviations in excess of 0.60 inch in a 25 foot span shall be corrected by the Contractor at no additional cost to the City. Such corrective actions shall NOT include any grinding of metal expansion joints, themselves, but may include grinding of concrete in the vicinity of the joints.

All corrective action, including the identification and correction of bumps, shall be in accordance with the requirements of the Standard Specifications and shall be subject to the approval of the Engineer. The surfaces of ground asphalt pavements shall be fog sealed. The surfaces of corrected areas shall be retextured to be similar to that of the adjacent sections of pavement or bridge deck and shall exhibit good workmanship and be neat in appearance. Cores for thickness determinations and measurement of cover of reinforcement steel will be taken subsequently to all corrective work.

PBDS-4
1. If the width of a street is such that it exceeds the paver's ability to pave one-half the street width another paver will be required and shall be operated so as to lay asphalt on at least one-half of the street width at a time.

2. The longitudinal joint shall run parallel to the approximate center of the street. Transverse joints shall be kept to a minimum. If it becomes necessary to stop the paving operation short of the end of the job then the two transverse joints shall be no farther apart than 6'.

3. If for any reason the Contractor is unable to pave one-half the width of the street with one paver, paving operations shall cease.

4. A paving plan, indicating sequence of paving passes, pass widths, pass thickness, and requested temporary street closures, will be submitted prior to paving.

5. Once paving begins the Contractor should have sufficient trucks available to deliver asphalt materials in a continuous operation.

6. Adequate transitions to side streets and driveways must be provided. In general, paving shall extend to the returns of all side streets. Special consideration should be given to preventing ponding in side street intersections.

7. The contractor shall provide butt joints as directed by the Engineer. Wherever the planned overlay of an existing street meets existing pavement, or at the end of a paving run, butt joints shall be provided to a depth matching the planned overlay thickness. The transition shall extend a minimum of 10 feet longitudinally from the joint to provide a smooth riding surface. Butt joints will not be paid for directly but the cost shall be included in the cost of the paving operations where they are used.

8. Contractor shall not drive empty or loaded trucks or equipment across newly paved areas for the construction period.

9. A leveling or "wedge" course may be required to establish the required to cross-slope for the finished overlay. This item of work will be paid for separately under the bid item designated as Asphalt Concrete Type "S5" in tons.
PART 608 - TRAFFIC SIGNS

608.1 GENERAL

608.1.1 This work shall consist of furnishing materials and installing traffic signs in accordance with these specifications and in reasonably close conformity with the location and dimensions shown on the Standards, Plans or established by the Engineer.

608.1.2 Signs shall be designed in accordance with the 2009 Manual on Uniform Traffic Control Devices (MUTCD) with revisions and the 2004 FHWA Standard Highway Signs (2012 Supplement to the 2009 MUTCD).

608.1.3 Street name sign proofs shall be submitted to the Traffic Engineer for review and approval prior to fabrication.

608.2 MATERIALS

608.2.1 General

Signs shall be composed of aluminum metal sheeting overlaid with cut-out film and a reflective sheeting material. Mounting shall be with posts, hardware and brackets as specified.

608.2.2 Sheet Aluminum

Provide 0.080-ga sheet aluminum signs in accordance with ASTM B 209, alloy 6061-T6 or alloy 5052-H38 with mill finish. Use the dimensions, filleted corners, and hole sizes and locations as shown on the sign standards. Ensure panels are flat and straight within commercial tolerances. Treat sheet aluminum signs with a chromate type chemical conversion coating in accordance with ASTM B 449, Class II.

608.2.3 Reflective Sheeting

Post-Mounted Signs: Sheeting shall be High Intensity Prismatic meeting ASTM D4956 Type III / IV (3M 3930 or approved equal).

Mast-Arm Mounted Signs: Sheeting shall be Diamond Grade meeting ASTM D4956 Type XI (3M DG3 or approved equal).

All sheeting shall have a Class I adhesive backing.
608.2.4 Overlay

Electronic cuttable sign film designed for use with electronic sign plotters (3M ElectroCut Series 1170 Film, or approved equal).

608.2.5 Mounting Hardware

Bolts, nuts, washers, brackets, and all other hardware needed for mounting shall be suitable for long-term outdoor use

A) Bolts: 5/16" x 3", hex head

B) Nuts: flanged, self-locking, size as needed

C) Washers: ¾" O.D., maximum

D) Brackets: for mast-arm mounting, use a prefabricated mounting system (Pelco Structural Astro-Brac® or approved equal). See COT Standard 616.

608.2.6 Posts

Sign posts shall be perforated square tube (Telespar® or approved equal). Signs shall be composed of new hot-rolled carbon sheet steel, structural quality, ASTM A 1101. Provide a finish that is in-line, hot-dip galvanized zinc coating in accordance with AASHTO M120, followed by a chromate conversion coating, and a clear organic exterior coating. Provide posts with ½-in. (± 1/16-in.) diameter holes spaced 1-in. on center along the center of each of the four sides.

608.3 CONSTRUCTION METHODS

608.3.1 General

Construction methods shall involve fabrication and mounting of the sign to the appropriate type mount.

608.4 METHOD OF MEASUREMENT

608.4.1 Signs of the size and type specified will be measured by the square foot of area of the vertical front face with no deduction for rounded corners or bolt holes.

608.4.2 Posts of the size specified will be measured by the linear foot between the ends of the installed post.
608.5 BASIS OF PAYMENT

608.5.1 Accepted signs, measured as provided above, will be paid for at the contract unit price as follows:

608.5.2 SIGNS

GROUND SIGN ........................................ SF
OVERHEAD SIGN ...................................... SF

Such payment shall be full compensation for furnishing all materials, equipment, labor and incidentals required to complete the work as specified.

608.5.3 POSTS

1-1/2” SIGN POST ..................................... LF
1-3/4” SIGN POST ..................................... LF
2” SIGN POST .......................................... LF

Such payment shall be full compensation for furnishing all materials, equipment, labor and incidentals required to complete the work as specified.
SPECIAL PROVISIONS

REMOVAL OF CASTINGS

All water, sanitary sewer, and storm sewer manhole castings, lids, frames, curb hoods, grates, hydrants, valves, and other fittings removed as part of any construction project are property of the City of Tulsa. Contractor will not take ownership.

All storm sewer and sanitary sewer castings shall be salvaged and delivered by the contractor to the Underground Collections North Sewer Base Stockyard at 9319 East 42nd Street North. Contractor will coordinate the return of such items with the Stockyard personnel at 918-669-6130.

All hydrants, valves, and other fittings from abandoned water mains shall be salvaged and delivered by the contractor to the South Yard at 2317 South Jackson Avenue. Contractor will coordinate the return of such items with the South Yard personnel at 918-596-9401.
SECTION 06 0000 – CAT 6 ETHERNET CABLE

Comply with the City's Standard Specifications and Standard Details Part 611 – ELECTRICAL CONDUCTORS TRAFFIC SIGNAL as supplemented and/or modified as follows:

611.2 MATERIALS

*Remove the second sentence of section 611.2.3 and replace it with the following text:*

Ethernet cable used for wireless signal communications shall be industrial grade shielded CAT 6, rated for outdoor use, unless otherwise specified in the project plans.

614.5 BASIS OF PAYMENT

*Add the following text to the section 611.5:*

CAT 6 ETHERNET CABLE..............LF
SECTION 06 0001 – COMMUNICATION SWITCH (DYMEC KY-3170EM4)

DESCRIPTION
The Communication Switch shall meet the specifications of the Dymec KY-3170EM4 switch. The network switch shall be form factored to slide directly into the slots in the 332 and 336 controller cabinets.

BASIS OF PAYMENT
The City will pay for each pay item at the contract unit price per the specified pay unit as follows:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMUNICATION SWITCH (DYMEC KY-3179EM4)</td>
<td>EA</td>
</tr>
</tbody>
</table>
SECTION 06 0002 – CONFLICT MONITOR (18 CHANNEL EDI 2018 ECLIP)

Comply with the City’s Standard Specifications and Standard Details Part 610 – TRAFFIC SIGNAL CONTROLLER CABINET ASSEMBLY as supplemented and/or modified as follows:

610.2.6 Conflict Monitors and Auxiliary Equipment

*Remove second sentence in section 610.2.6 replace it with the following text:*

Cabinet shall be wired for an EDI model 2018 ECLIP or approved equal.

**METHOD OF MEASUREMENT**

Conflict monitor is included in the TRAFFIC SIGNAL CONTROLLER CABINET ASSEMBLY bid item. If the controller cabinet assembly is not replaced, this item will be paid for on a per/each basis.

**BASIS OF PAYMENT**

The City will pay for each pay item at the contract unit price per the specified pay unit as follows:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONFLICT MONITOR (18 CHANNEL EDI 2018 ECLIP)</td>
<td>EA</td>
</tr>
</tbody>
</table>
SECTION 06 0003 – FIBER OPTIC JUMPERS

DESCRIPTION
Provide cable assemblies (jumpers) that are Corning Lanscape Solution cable assemblies or approved equal that meets the following minimum requirements. Provide the cable used for cable assemblies that is made of fiber meeting the performance requirements of the specifications for the fiber optic cable being connected. Provide Manufacturer's attenuation test results for all cable assemblies.

Fiber Optic Jumpers may be of simplex or duplex design. Provide all jumpers to be at least six feet in length, sufficient to avoid stress and allow orderly routing. Provide jumpers that have connectors on both ends. Ensure that the outer jacket of duplex jumpers is yellow for all single mode; orange for 62.5μm multimode; aqua for 50μm multimode jumpers. Ensure that the two inner simplex jackets have contrasting colors to provide easy visual identification for polarity. Ensure that all jumper connectors are factory terminated. Do not use field terminations.

BASIS OF PAYMENT

The City will pay for each pay item at the contract unit price per the specified pay unit as follows:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIBER OPTIC JUMPERS</td>
<td>EA</td>
</tr>
</tbody>
</table>
SECTION 06 0004 LED 4 SECTION TRAFFIC SIGNAL HEAD (S-13)L

Comply with the City's Standard Specifications and Standard Details Part 614 – LED TRAFFIC SIGNAL HEADS AND PEDESTRIAN SIGNAL HEADS as supplemented and/or modified as follows:

614.5 BASIS OF PAYMENT

Add the following text to the section 614.5:

LED 4 SECTION TRAFFIC SIGNAL HEAD (S-13)L..............EACH
SECTION 06 0005 – PAN TILT ZOOM (PTZ) CAMERA

DESCRIPTION
The Pan Tilt Zoom Camera shall have a progressive scan and 35X Zoom meeting the specifications of the Q6055E Network Dome Camera.

METHOD OF MEASUREMENT
Measurement of camera assemblies, including all specified equipment, mounting hardware, and other appurtenances to make the camera operational. This item includes the needed CAT 6 ethernet cable to operate and power the camera.

BASIS OF PAYMENT
The City will pay for each pay item at the contract unit price per the specified pay unit as follows:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAN TILT ZOOM (PTZ) CAMERA</td>
<td>EA</td>
</tr>
</tbody>
</table>
SECTION 06 0006 – TRAFFIC CONTROL

DESCRIPTION
Work zone traffic control shall be in accordance with applicable portions of Chapter 100 and Chapter 800 of the Oklahoma Department of Transportation Specifications, the Oklahoma Department of Transportation traffic control standards and specifically as follows.

TRAFFIC MANAGEMENT SCHEDULE

A. Traffic management schedules shall be submitted to the engineer for review prior to the start of work and prior to any revisions to the traffic management schedule. The traffic management schedule shall include the proposed traffic control measures, the hours traffic control will be in place, and work hours.

B. The traffic management schedule shall conform to the limitations specified in Sec 880 regarding lane closures, traffic shifts, road closures and other width, height and weight restrictions.

C. The engineer shall be notified as soon as practical of any postponement due to weather, material, or other circumstances.

D. In order to ensure minimal traffic interference, the contractor shall schedule lane closures for the absolute minimum amount of time required to complete the work. Lanes shall not be closed until material is available for continuous construction and the contractor is prepared to diligently pursue the work until the closed lane is opened to traffic.

E. The contractor shall, upon approval of the engineer, take proactive measures to reduce traffic congestion in the work zone. The contractor shall immediately implement appropriate mitigation strategies whenever traffic congestion reaches an excess of 10 minutes to prevent congestion from escalating beyond the delay threshold. If disruption of the traffic flow occurs and traffic is backed up in queues equal to or greater than the delay time threshold listed above then the contractor shall immediately review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent the queues from reoccurring. Traffic delays may be monitored by physical presence on site or by utilizing real-time travel data through the work zone that generate text and/or email notifications where available. The engineer monitoring the work zone may also notify the contractor of delays that require prompt mitigation. The contractor may work with the engineer to determine what other alternative solutions or time periods would be acceptable.

BASIS OF PAYMENT

The City will pay for each pay item at the contract unit price per the specified pay unit as follows:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRAFFIC CONTROL</td>
<td>EA</td>
</tr>
</tbody>
</table>

LINK TULSA
HNTB Corporation
October 2021
SPECIAL PROVISIONS
TYPE 170 CONTROLLER AND CABINET

THIS SECTION INCLUDES
170 Controller, 170 Cabinet, 170 Conflict Monitor and Auxiliary Equipment
designated for installation in the project plans.

Controller Cabinet and Auxiliary Equipment
The Caltrans Specification shall be the basis for this specification with noted
exceptions stated in the following references.

1. The 170 controllers shall be a 170E controller or latest version.

2. All Integrated Circuits in the 170E or Latest version shall have Sockets for the
   Integrated Circuits on all the Printed Circuit Boards. The Controller shall have
   an RS-232 port on front of controller display panel for laptop access from front
   of Controller. The PROM Module Shall be Programmed with BiTrans Software
   Version 233RV2.8B.

3. The Conflict Monitor must be either Peak 225 with extended features or the
   210P. Printed Circuit board shall have sockets for all the Integrated Circuits.

4. The Control Cabinet shall come with a “Innovative Technologies” HS-P SP-
   120-60A-RJ AC Suppressor, this unit carries the full intersection load, the
   Suppressor shall have a 30 amp circuit breaker between the HS-P SP-120 and
   the public utility service to provide the ability to disconnect the Control Cabinet
   from the power source, mount near the HS-P SP-120-60A for access.

5. The Control Cabinet shall come with Pedestrian Isolator Model 244 or 2 Model
   242.

6. The Control Cabinet Shall come prepared for 3M Opticom with Green Sensing.
   The 752-opticom cards will be used. A terminal strip for Detector Head
   connection to the field for 3M 722 Detector Head will be used.

7. The Control Cabinet will use video detection and shall come with Video Filter/
   Power Panel for video Detection; the video filters shall be “Innovative
   Technologies” Video Filter COAX-BNC-1.5GHzertz or Equivalent Video Filter.
   Each video camera shall have a fuse at correct amperage for camera power.

8. Cabinet shall be wired for 210Plus Conflict Monitor or Peak 225 Conflict
   monitor with extended features.

9. The Output file shall have MOV's. The Odd Phase Reds and Ped Don't Walks
   shall have snubber attached to the Loadswitch output to prevent going to flash

TCC-1
for a “Red” out or “Don’t Walks”. The Snubbers shall be “General Electric” GE 42L1151 capacitor rated at 1.5 microfarads at plus or minus 5% tolerance and 850VDC rated and high current or equivalent.

10. The Outside of cabinet exterior shall be anodized aluminum or clear powder coated.

11. The Interior shall be powder coated white.

12. The Control Cabinet shall come with auxiliary output file for at least 4 overlaps.

13. The Control Cabinet shall come with an adapter base for mounting.

14. The Control Cabinet for 8 Phase locations shall be a 332 cabinet.

15. The Control Cabinet Shall come with a PDA-2 power supply.

16. The Control Cabinet shall come with a pull out drawer mounted directly below the 170 Controller.

17. The Control Cabinet shall come with a Duplex Outlet with GFI protection.

18. The Control Cabinet Shall have all input detection device outputs pass through a 3-position switch to allow for isolation of device output to controller. The 3-position switch shall have (a) “Momentary”, down position, (b) “On”, up position, (c) “Off”, center position. The switch shall be placed in the mount with the top terminal as Number 1 this will be the “On” position. The Input file switches shall be set up in the following manner: Switch 1 terminal 3 to I6-W, Switch 2 terminal 3 to I7-F, Switch 3 terminal 3 to I3-W, Switch 4 terminal 3 to I2-F, Switch 5 terminal 3 to I7-W, Switch 6 terminal 3 to I6-F, Switch 7 terminal 3 to I2-W, Switch 8 terminal 3 to I3-F, Switch 9 terminal 3 to I12-F, Switch 10 terminal 3 to I12-W, Switch 11 terminal 3 to I13-F, Switch 12 terminal 3 to I13-W. This allows for manipulating the output of all the input devices. The Input switches shall be mounted at the top of rack above the controller for easy access while being able to view the controller display.

The switches shall be wired as follows: the center terminal of switch shall be wired to the C1 cable, Switch 1 terminal 2 to C1-45, Switch 2 terminal 2 to C1-65, Switch 3 terminal 2 to C1-76, Switch 4 terminal 2 to C1-39, Switch 5 terminal 2 to C1-78, Switch 6 terminal 2 to C1-41, Switch 7 terminal 2 to C1-43, Switch 8 terminal 2 to C1-63, Switch 9 terminal 2 to C1-67, Switch 10 terminal 2 to C1-69, Switch 11 terminal 2 to C1-68, Switch 12 terminal 2 to C1-70. The switch terminal number 1 for momentary operation shall be wired to Logic Ground on all 12 switches. The wire bundle shall be long enough to allow for maintenance of the switch panel for switch replacement if necessary.
DESCRIPTION. This work shall consist of installing Truncated Domes.

MATERIAL. The Truncated Domes shall be pre-case concrete pavers with a nominal thickness of 7/8 inch to 2 inches. They shall be constructed with a minimum of 4000 psi concrete. They shall be yellow in color and meet all ADA requirements for color contrast and dimensions.

CONSTRUCTION METHODS. The panels shall be installed according to the manufacturer's recommendations and in accordance with City of Tulsa Standard Drawing No. 790—Standard Sidewalk Ramp.

METHOD OF MEASUREMENT. The Truncated Domes will be measured by the square foot of panel area.

BASIS OF PAYMENT. Accepted panels, measured as provided above, will be paid for at the contract unit price as follows:

<table>
<thead>
<tr>
<th>TRUNCATED DOMES</th>
<th>SQUARE FOOT</th>
</tr>
</thead>
</table>

Such payment shall be full compensation for furnishing all materials, equipment, labor and incidentals to complete the work as specified.
DESCRIPTION:
The work under this item shall consist of restoring Rights-of-Way. Contractor shall be responsible for the removal and replacement of mailboxes, drains, traffic signs, and curb street address number, sprinkler system or any other improvement within the right of way that is not paid for in other items of work.

CONSTRUCTION REQUIREMENTS:
All existing improvements as called for in this special provision to be replaced or reconstructed shall be restored to substantially the same condition as existed prior to the construction. Contractor shall document by photographing all obstructions and improvements prior to the start of construction.

As the work progresses, all streets shall be thoroughly cleaned of all rubbish, excess earth, rock, and other debris resulting from such work. All clean-up operations at the location of such work shall be accomplished at the expense of the contractor and shall be completed to the satisfaction of the engineer.

IRRIGATION SYSTEMS

DESCRIPTION:
The work shall consist of repairing any irrigation systems inside or outside the street Right of Ways as a result of damages or adjustments needed during the course of the construction to the satisfaction of the engineer.

CONSTRUCTION REQUIREMENT:
Contractor shall repair irrigation systems using like materials and shall include all materials necessary for the proper installation and function of the system. Materials such as valves, controllers, pop up spray and rotary heads, risers, seals, backflow preventer and main line pipe damaged during the course of the construction shall be re installed to its original condition. Excavation, placement, testing, back filling and compacting shall be done as required by the city of Tulsa standard specifications.

STREET ADDRESS AT CURB

DESCRIPTION:
The street address of the building, structure or lot served by the reconstructed driveway shall be painted on the curb of the driveway. Location to be approved by the Engineer. The street address shall face traffic flow.

CONSTRUCTION REQUIREMENTS:
The Street Address to be painted shall conform to city specifications as to size and form, and the
quality of paint to be used, as determined by the City of Tulsa Public Works Department.

Street Address placed on the curb shall be done using a vinyl numbers stencils; letters shall be in black paint in figures of the size of three inches in height, and impressed upon a white background of the size of five by eleven inches. Standard stencil lettering with height, color and style shall be as approved by the engineer or in accordance with the most current City of Tulsa Standards.

MAILBOX REMOVAL AND RELOCATION

DESCRIPTION:
Contractor shall remove, reset and/or reconstruct any and all mailboxes within the street right of way.

CONSTRUCTION REQUIREMENTS:
The removal, resetting and/or reconstruction of mail boxes in street right of way shall be coordinated with the local postmaster as required. Mailboxes shall be located no closer than 1' behind the face of curb to face of box.

Where Special mailboxes such as Stone, masonry brick, or non standard mail boxes exist, contractor shall replace all mailboxes in like kind. The kind and quality of materials in which mailboxes shall be reconstructed shall be to the satisfaction of the property owner and approved by the engineer.

The replaced mailbox shall be capable of withstanding wind loading and lateral load associated with the delivery of the mail.

DRAINS

DESCRIPTION:
Contractor shall reestablish drains, roof drains, and other drainage through the curb.

CONSTRUCTION REQUIREMENTS:
Removal, replacement, salvage of drains in street right of way shall be done during road construction phase.

Contractor shall replace all drains in like kind. The kind and quality of materials in which drains shall be reconstructed shall be to the satisfaction of the property owner and approved by the engineer.

All re-established drains shall include a storm water curb opening as described in City of Tulsa Standard Drawing 758.
TRAFFIC SIGNS

DESCRIPTION:
Unless otherwise directed by the plans and specifications, this item shall consist of removing, storing, and resetting all existing traffic signs. Contractor shall remove, store, and reset all traffic signage as required for construction of this project.

CONSTRUCTION REQUIREMENTS:
Roadside signs shall be placed at locations shown on the plans or at existing locations and shall be installed in compliance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).

METHOD OF MEASUREMENT:
Irrigation Systems, Street Address at the Curb, Mailbox Removal and Relocation, Drains, and Traffic Signs will be measured by EACH for the project.

PAYMENT:
Special (C) Urban Right-Of Way Restoration (measured as provided above) will be paid for at the contract unit price by EACH. Such payment shall be full compensation for all equipment, tools, labor, and incidentals necessary to complete the work as specified.

Special (C) Urban Right-Of-Way Restoration ......................................EACH
STORM WATER CURB OPENING

ATTACH DRAIN FROM HOUSE WITH COUPLER AND WATER TIGHT BAND CLAMP PER MPGR RECOMMENDATION.

SECTION A-A

RESIDENTIAL CURB INLET

1. CONTRACTOR SHALL RECONNECT ANY SIDE DRAINS FROM ADJACENT PROPERTY THROUGH THE CURB.
2. INSTALL R-3262-3 SERIES HEAVY DUTY STORM WATER CURB OPENING BY NEENAH OR APPROVED EQUAL.
3. FIELD VERIFY SIZE AND LOCATION PRIOR TO PAVING OPERATIONS.
4. CONTRACTOR SHALL CAST INLETS IN PLACE DURING CURB PRODUCTION "CUT IN" NOT ACCEPTED.

URWR-4
SPECIAL PROVISION
FOR UTILITY RELOCATIONS
AND DESIGN ISSUES

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

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