Specification

Well 6 Control Systems and Panel

Prepared By:

City of Sullivan
Engineering Department
210 West Washington
Sullivan, Missouri 63080
(573) 468-8965

March 2019

It is the intent of this document to set forth plans and specifications for a complete and usable project. It shall be the duty of the contractor to bring to the attention of the Engineer any omissions, conflicts or errors which could compromise this aim.

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Invitation to Bid
For
Well 6 Control Systems and Panel
For The City of Sullivan
Sullivan, Missouri

Sealed proposals, addressed to City of Sullivan, Missouri will be received until **April 23, 2019 at 10:00 a.m.**, at the office of City Clerk, Janice Koch, 210 West Washington, Sullivan, Missouri 63080, after which they will publicly be opened and read aloud.

This Contract will consist of all necessary work to remove the existing control equipment, re-route conduit and wiring as needed for the installation of the new control system and electric components as outlined in the specifications.

Copies of the Contract Documents and Detailed Specifications required for bidding purposes may be obtained from the Engineering Department, City Hall, 210 West Washington, Sullivan, Missouri, 63080. Bidders having questions or requesting additional information should contact Robert Schaffer, P.E., CFM, City Engineer, at the Sullivan Engineering Department, telephone number 573-468-8965.

Effective January 1, 2009 and pursuant to Missouri Revised Statute Section 285.530 (1), "No business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri."

Bidders on the work will be required to comply with the State prevailing wage rates which will be included in the Contract Documents. Not less than the prevailing hourly rate of wages specified shall be paid to all workers performing work under the Contract. Prevailing wage shall not be required on projects that total less than $75,000. Bids shall be accompanied by Bidder's certified check, cashiers check or Bid Bond in the amount of five percent (5%) of the Bid Price.

The City of Sullivan reserves the right to accept or reject any or all bids received and to waive or not to waive any or all irregularities.

By virtue of statutory authority, a preference will be given to materials, products, supplies, provisions and all other articles produced, manufactured, made or grown within the state of Missouri.

INFORMATION FOR BIDDERS
FOR
WELL 6 CONTROL SYSTEMS AND PANEL
SULLIVAN, MISSOURI

1. BID GUARANTY:

Each bid shall be accompanied by a bid bond, cashier's check or a certified check for an amount not less than five (5) percent of the bid amount, payable unconditionally to the City of Sullivan, Missouri as a guarantee that the bidder will execute a contract and furnish the required bond if his bid is accepted.

2. OPENING OF BIDS:

All bids will be opened publicly and read aloud at the place designated and at the time set in the Advertisement for Bids. The right to reject any or all bids and to waive defects or technicalities in bids is reserved. Collusion between bidders is sufficient cause to disqualify all bidders so involved.

3. RETURN OF BIDDER'S DEPOSITS:

The bid guaranty, whether check or bid bond, of the low bidder will be retained until the contract has been executed by the successful bidder, all insurance requirements met and satisfactory contract bond furnished. The check of the low bidder will then be returned. The bid guaranty of the second low bidder will be returned when the City has determined that the award will not be made to that firm. If errors or irregularities appear in the bid of either of the two apparent low bidders which create doubt as to the status of such bid, the bid guaranties of other bidders may be retained. When the two lowest bidders have been definitely established, the checks of the other bidders will be returned. Any bid bond furnished as a bid guaranty will be returned only upon the request of the bidder furnishing it. If an award is not made, all checks will be returned to the bidders.

4. FORM OF PROPOSAL:

All bids must be made on the attached form of proposal. Bid blanks must be completed and clearly filled in and must be free from alteration either by erasure or interlineations, or otherwise the bid proposal will be voided.

Bids must be properly signed in ink by the bidder or by an authorized official or agent when the bidder is a firm or corporation. When the bid is made by a firm, the signature must include the firm name, and the signature of member thereof. When made by a corporation, the signature must contain the name of the corporation followed by the

signature of the official or person authorized to bind it in the matter and with proof of his authority. When filed, the bid with the accompanying bid security must be enclosed together in a sealed envelope, clearly marked on the outside with the bid number and project name, addressed to the City Clerk, Sullivan, Missouri. The bidder shall designate on the bid blank his official address to which all communications can be mailed. No facsimiles will be accepted.

5. BASIS OF AWARD:

Bids will be compared by the extension and summation of the unit prices submitted in the proposal. The quantities as shown on the proposal form are estimated and are furnished to be used as a basis for calculations and for the preparation of the bid. The quantities are not necessarily exact.

6. AWARD OF CONTRACT:

The City will award the contract within a period not exceeding one hundred twenty days after the date of opening the bids, or else will reject all bids. The City reserves the right to require the successful bidder to file proof by the contract of their successful completion of similar projects.

7. EXECUTION OF CONTRACT:

The bidder to whom the contract has been awarded shall sign the contract payment bond and performance bond and return them to the City within ten (10) days after receipt of the contract. Failure to execute the contract and bonds and return them to the City within ten (10) days after receipt of the contract shall be cause for the annulment of the contract award and the forfeiture of the bid guaranty to the City.

8. PERFORMANCE AND PAYMENT BOND:

A bond will be required for the full amount of the contract price with a surety company authorized to do business in the State of Missouri and satisfactory to the City, conditioned for the faithful performance and payment of this contract and the guarantee of the work.

9. RIGHT RESERVED TO REJECT BIDS:

The City reserves the right to reject any or all bids.

10. COMPLETION TIME:

The Contractor shall commence work within seven (7) days after the date of written notice from the Engineer to begin work, and shall complete all work within the number of days detailed in the Contract Agreement after the expiration date of such seven (7) day period. Progress and completion of work and damage if required for failure to complete the work within the time required shall be further set out in detail in the general conditions and the special provisions.

11. SURVEYS, PERMITS AND REGULATIONS:

The contractor shall make all surveys including all required construction staking. Any property corners disturbed by the construction activities shall be replaced at the contractor's cost. Permits and licenses of a temporary nature necessary for the prosecution of the work shall be secured and paid for by the contractor.

The contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. The contractor is required to observe all laws and ordinances relating to the obstructing of streets, maintaining signals, keeping open passageways and protecting them where exposed to danger, and all general ordinances affecting them or their employees or their work hereunder in their relations to the owner or any person, and also to obey all laws and ordinances controlling or limiting the contractor while engaged in the prosecution of the work under this contract. If the contractor observes that the drawings and specifications are at variance with laws and regulations, they shall promptly notify the Engineer in writing, and any necessary changes shall be adjusted as provided in the contract for changes in the work. If the contractor performs any work knowing it to be contrary to such laws, ordinances, rules, regulations, or specifications, of local, state or federal authorities without such notice to the Engineer, they shall bear all costs arising therefrom.

See Section 2.2.14 of the General Conditions.

12. NO OTHER INTERESTED PARTIES:

The contractor declares that the only persons interested in this contract as principals are therein named as such; that no official of the municipality and no person acting for or employed by the municipality is directly or indirectly interested in this bid, or in any contract which may be made under it, or in any expected emolument, or profit to arise there from; that their bid and their contract are made in good faith, without fraud, collusion or connection with any other person bidding for the same work.

13. WITHDRAWAL OF BIDS:

Any bidder may withdraw their bid at any time prior to the scheduled closing time for the receipt of bids, but no bid shall be withdrawn for a period of one hundred twenty (120) days after the scheduled closing time for the receipt of bids.

14. CONTRACTOR'S UNDERSTANDING:

It is understood and agreed that the contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of the equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can in any way affect the work under this contract.

No official, officer, or agent of the owner is authorized to make any representations as to the materials or workmanship involved, or the conditions to be encountered, and the

contractor agrees that no such statement or the evidence of any documents or plans, not a part of this contract, shall constitute any grounds for claim as to conditions encountered. No verbal agreement or conversation with any officer, agent or employee of the owner either before or after the execution of this contract shall affect or modify any of the terms or obligations herein contained.

It is understood and agreed that the contractor has informed themselves fully as to the conditions relating to construction and labor under which the work will be performed, and agrees as far as possible to employ such methods and means in the carrying out of the work as will not cause any interruption or interference with any other contractor.

15. CONDITIONS IN BIDDER'S PROPOSAL:

The bidder shall not stipulate in their proposals any conditions not contained in the form of proposal contained in the contract documents.

16. TAXES:

Bidders shall include in their proposals any sales or use taxes which they are required by law to pay. This project is exempt from all sales taxes for construction materials and suppliers used directly in fulfilling contract requirements. Sales tax shall not be included into the unit costs for this project. The contractor shall follow the regulation as outlined in Missouri 12 CSR 10-3.388 Construction Materials.

The City will issue the contractor a tax exemption letter and a project exemption certificate. These documents are to be given to the applicable suppliers and used only for the project identified and will expire on the date indicated unless otherwise renewed by the City.

17. RIGHTS-OF-WAY:

The City will provide all rights-of-way upon which work is to be done.

18. INSURANCE:

The successful bidder must provide one (1) properly executed certificate of insurance and one (1) copy of the performance and payment bonds after the signing of the contract with the City.

Liability Insurance: The Contractor and any subcontractor shall indemnify and save harmless the City from all suits or action of every name and description brought against the City for or on account of any personal injuries, including accidental or resulting death, or property damages received or claimed to be received or sustained by any person or persons due to the construction of the work, or by or in consequence of any hazard, or of any negligence by the contractor or sub-contractor, their agents or employees or assigns in safeguarding it, or due to any improper material used in the construction, or by or on account of any act or omission of the contractor or subcontractor, their employees, agents or assigns.

The Contractor shall carry adequate public liability and property damage insurance for the joint and several benefit of the contractor and the City with a company licensed to do business in the State of Missouri and satisfactory to the City and in the amounts not less than those specified below. The amounts of coverage required for public liability or property damage shall not be construed to limit the liability of the contractor in protecting the City from damage or injury claims. The City shall have the right to require the contractor to increase any or all such insurance policy limits while the contract work is in progress in the event the engineer determines that unusual or special risks revealed by the work so require and in such amounts as the engineer may determine to be adequate, and without thereby limiting the liability of the contractor in protecting the city from damage or injury claims.

As partial security for the defense of claims and the payments required under such indemnity, the contractor and any subcontractor shall furnish at their cost, an owner's protective insurance policy satisfactory to the city naming the City as insured for amounts not less than the contractor's public liability and property damage insurance covering the work.

The contractor shall comply fully with the requirements of the Workmen's Compensation Act of the State of Missouri and shall furnish evidence that the contractor is insured there under.

The coverage shall insure the City of its officers and employees while acting within the scope of their duties against all claims arising out of or in connection with the work to be performed.

The cost of the insurance shall be included in the prices bid for the various items of work and no additional payment will be made therefore.

The amounts of such insurance shall be not less than the following:

a) Contractor's Bodily Injury Liability and Property Damage Liability Insurance:

1) Injury or death of one person $2,000,000

2) Injury to more than one person in a single accident $2,525,423

3) Property damage $2,000,000

b) Automobile and Truck Public Liability, Bodily Injury, and Property Damage:

1) Injury or death of one person $2,000,000

2) Injury to more than one person in a single accident $2,525,423

3) Property damage $2,000,000

Certificates of insurance sent to the City as evidence of insurance shall contain the following statements, and in their absence the certificates will not be satisfactory to the City.

1) The insurance evidenced by this certificate will not be cancelled or altered except after ten (10) days from receipt by the City of written notice thereof.

2) The insurance evidenced by this certificate expressly includes blanket underground coverage including, but not limited to, injury to or destruction of wires, conduits, pipes, mains, sewers, or other grading of land, paving, backfilling, excavating or drilling, or to injury to or destruction of property at any time resulting there from.

3) The insurance evidenced by this certificate expressly includes person injury or death, or injury to or destruction of any property arising out of blasting or explosion or the collapse of or structural injury to any building or structure due to grading of land, excavation, filling, backfilling, or tunneling.

4) A certificate of insurance must be filed with the City providing builder's risk insurance for the proposed project.

5) The City must be listed on all Certificates of Insurance as additional insured.

6) A statement of the insurance company's A.M. Best rating will be required. A rating of at least A-VI is required.

19. CONTRACTOR'S WORK SCHEDULE:

The contractor shall submit a preliminary work schedule for the Engineer's approval prior to initiation of construction. This schedule must show that steady uninterrupted progress is planned for the improvements and that minimum disruption of local traffic will take place. This schedule shall be updated monthly through the length of the project.

20. PRICE TO BE WRITTEN:

If space is provided on the bid form, all prices shall be written in words, as well as expressed in figures, where space is provided. In case of a discrepancy between the prices written in words and prices written in figures, the prices written in words will be used.

21. COMPLIANCE:

The successful bidder will be required to comply with the Division of Labor Standards, Wage Determination Rate, which is made a part of this specification.

The successful bidder shall comply with requirements of Section 290.550 to 209.580 RMSo (2000), conclusive, when applicable.

22. TRAFFIC CONTROL / SIGNAGE:

The contractor shall supply the required signage and barricades to give proper warning of this work. The type and amount of signage shall, at a minimum, be as indicated on the drawings, specified or as directed by the Traffic Technician or Engineer. All signage shall be in conformance with the manual on Uniform Traffic Control Devices. Any obstruction left in or upon the street or sidewalk between one hour after sunset to one hour before sunrise shall have a lighted barricade(s) attached to or placed with it. Detour routes and signage must be well marked and approved by the engineer prior to posting. All signage and traffic control is at the contractor's expense unless specifically listed as a pay item, and shall become the City's property at the end of the project.

23. CITY WILL FURNISH:

The City will furnish the specifications for the project.

24. CONSTRUCTION COSTS:

All units of construction necessary for the completion of the project shall be performed at no additional costs for the City unless specifically listed as a pay item.

25. UTILITIES:

The Contractor will be required to have all utilities located. Damage to existing utilities due to neglect of the contractor shall be repaired at the contractor's expense.

27. SAFETY:

The contractor is responsible for all job site safety and shall follow all governmental rules and regulations particularly those of the Occupational Safety and Health Administration (OSHA).

Missouri law, 292.675 RSMo, requires the Contractor and its subcontractor(s) to provide a ten-hour Occupational Safety and Health Administration (OSHA) construction safety program (or a similar program approved by the Missouri Department of Labor and Industrial Relations as a qualified substitute) for their on-site employees (laborers, workmen, drivers, equipment operators, and craftsmen) who have not previously completed such a program and are directly engaged in actual construction of the improvement (or working at a nearby or adjacent facility used for construction of the improvement). The Contractor and its subcontractor(s) shall require all such employees to complete this ten-hour program, pursuant to 292.675 RSMo, unless they hold documentation on their prior completion of said program. Penalties for non-compliance include Contractor forfeiture to the City in the amount of $2,500, plus $100 per contractor and subcontractor employee for each calendar day such employee is employed beyond the elapsed time period for the required program completion under 292.675 RSMo.

28. GOVERNING CONSTRUCTION STANDARDS:

Unless specifically noted otherwise within these Contract Documents, the following construction standards shall be used for and govern the work on this project:

> **Roadway Construction**: Missouri Standard Specifications for Highway Construction, 2004 edition or latest version thereof by the Missouri Highways and Transportation Commission.

The above noted documents are to be used as construction standards only. Contract language and specifications shall not be modified by these documents. Any part of the Contract or Contract Documents for this project shall take precedence over any contradictory language within the above noted documents.

29. POSTAL DELIVERIES:

The contractor is to make arrangements with the US Post Office to allow for delivery of the mail during the project. The contractor is to provide temporary mailboxes and reset or replace any existing mailboxes disturbed by the construction. This item shall be incidental and the contractor will not receive any direct payment for this item.

30. TRASH COLLECTION:

The contractor is to provide trash collection services if the construction activities prohibit regular collection services. This item shall be incidental and the contractor will not receive any direct payment for this item.

31. INGRESS/EGRESS ACCESS:

The contractor shall provide ingress/egress access to all properties at all times. All temporary roadways and driveways required on the project shall be incidental to the contract (unless otherwise provided) and no additional payment will be made for these items.

32. GROUND RESTORATION:

Unless otherwise provided, all disturbed areas within right-of-way or within established lawns shall be restored using sod or seed to match what was on the property originally, following City Standards.

SUMMARY OF REQUIRED SUBMITTALS

Submittals by Contractor:

Enclosed with Bid

- Proposal P1-P2 Submitted:_____
- Buy American Provisions (BA-1) Submitted:_____
- Immigration Compliance Affidavit and Documentation (P.IC-1 to IC-16) **NOTE: Contractor to sign all sheets in spaces provided.** Submitted:_____

Prior to Construction

- Bid Guaranty (p.IB-1) Submitted:_____
- Contract Agreement Submitted:_____
- Performance Bond (p. IB-2 and 2.7.04) Submitted:_____
- Payment Bond (p. IB-2) Submitted:_____
- Certificate of Insurance (p.IB-4, 2.7.01, 2.7.02, and 2.7.03) Submitted:_____
- Preliminary Work Schedule (p. IB-6 and 2.5.03) Submitted:_____
- Shop Drawings Submitted:_____
- List of Subcontractors (2.3.17) Submitted:_____

During Construction

- Requests for Partial and Final Payment
- Payroll Records (p. CA-2)
- Samples and Results of Tests (2.2.11 and 2.6.14)

Prior to Final Payment

- Payroll Records (p. CA-2) Submitted:_____
- Waiver of Liens (2.6.15) Submitted:_____
- Written Notice that work is ready for Final Inspection
- (p. CA-2) Submitted:_____
- Written Warranty (2.4.08 and CA-2) Submitted:_____
- Sworn Affidavit that all bills have been paid (CA-2) Submitted:_____

Submittals by Engineer:

- Tax Exemption Certificate (p. IB-4) Submitted:_____
- Notice of Award Submitted:_____
- Notice to Proceed (p. CA-1) Submitted:_____

NOTICE AND INSTRUCTIONS TO BIDDERS/VENDORS

REGARDING §§ 285.525 THROUGH 285.550 RSMO, EFFECTIVE JANUARY 1, 2009

Effective January 1, 2009 and pursuant to Missouri Revised Statute Section 285.530(1), "No business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri."

As a condition for the award of any contract or grant in excess of five thousand dollars ($5,000) by the state or by any political subdivision of the state (e.g. City of Sullivan, MO) to a business entity, the business entity (Company) shall, by sworn affidavit **and** provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. Every such business entity shall sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. Section 285.530 (2) RSMo.

"Business Entity" is defined as:

> …[A]ny person or group of persons performing or engaging in any activity, enterprise, profession, or occupation for gain, benefit, advantage, or livelihood. The term "business entity" shall include but not be limited to self-employed individuals, partnerships, corporations, contractors, and subcontractors. The term "business entity" shall include any business entity that possesses a business permit, license, or tax certificate issued by the state, any business entity that is exempt by law from obtaining such a business permit, and any business entity that is operating unlawfully without such a business permit. The term "business entity" shall not include a self-employed individual with no employees or entities utilizing the services of direct sellers as defined in subdivision (17) of subsection 12 of section 288.034 RSMo. See, Sec. 285.525 RSMo

_____

Contractor Signature

_____

Date

The City of Sullivan, Missouri, in order to comply with Sections 285.525 through 285.550 RSMo, has instituted the following procedure:

Required Affidavit for Contracts Over $5,000 (US) – Effective January 1, 2009, business entities desiring to contract with the City for the provision of service shall comply with the provisions of Sectiosn 285.525 through 285.550 RSMo. Contract award is contingent upon Company providing an acceptable notarized affidavit stating:

1. that Company is enrolled in and participates in a federal work authorization program with respect to the employees working in connection with the contracted services; and

2. that Company does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

A sample affidavit is attached.

Additionally, Company must provide documentation evidencing current enrollment in a federal work authorization program (e.g. electronic signature page from E-Verify program's Memorandum of Understanding (MOU)).

The City of Sullivan encourages companies that are not already enrolled and participating in a federal work authorization program to do so. E-Verify is an example of this type of program. Information regarding E-Verify is available at http://www.dhs.gov/e-verify or by calling 888-464-4218.

_____
Contractor Signature

_____
Date

If you have any questions, please contact the Engineering Department at the City of Sullivan at 573-468-8965.

_____
Contractor Signature

_____
Date

STATE OF MISSOURI)
)ss
COUNTY OF)

AFFIDAVIT

(as required by Section 285.530, Revised Statutes of Missouri)

As used in this Affidavit, the following terms shall have the following meanings:

EMPLOYEE:

Any person performing work or service of any kind or character for hire within the State of Missouri.

FEDERAL WORK AUTHORIZATION PROGRAM:

Any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or an equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, under the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603.

KNOWINGLY:

A person acts knowingly or with knowledge,

(a) with respect to the person's conduct or to attendant circumstances when the person is aware of the nature of the person's conduct or that those circumstances exist; or

(b) with respect to a result of the person's conduct when the person is aware that the person's conduct is practically certain to cause that result.

_____
Contractor Signature

_____
Date

UNAUTHORIZED ALIEN:

An alien who does not have the legal right or authorization under federal law to work in the United States, as defined in 8 U.S.C. 1324a(h)(3).

BEFORE ME, the undersigned authority, personally appeared

_____, who, being duly sworn, states on his oath or affirmation as

follows:

1. My name is _____ and I am currently the President of _____ (hereinafter "Contractor"), whose business address is _____, and I am authorized to make this Affidavit.

2. I am of sound mind and capable of making this Affidavit, and am personally acquainted with the facts stated herein.

3. Contractor is enrolled in and participates in a federal work authorization program with respect to the employees working in connection with the following services contracted between Contractor and

_____

_____

_____

_____

4. Contractor does not knowingly employ any person who is an unauthorized alien in connection with the contracted services set forth above.

_____
Contractor Signature

_____
Date

5. Attached hereto is documentation affirming Contractor's enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services.

Further, Affiant saith not.

_____

Printed Name, Affiant

Subscribed and sworn to before me this _____ day of _____,2019.

_____

Notary Public

My Commission Expires: State of Missouri

Commissioned in _____ County

PLEASE NOTE:

Acceptable enrollment and participation documentation consists of the E-Verify Memorandum of Understanding:

1. A valid, completed copy of the first page identifying the Contractor; and
2. A valid copy of the signature page completed and signed by the Contractor, and the Department of Homeland Security - Verification Division.

_____

Contractor Signature

_____

Date

CONTRACT AGREEMENT

This agreement, made the _____ day of _____, 2019, by and between _____, Party of the First Part, hereinafter called the "Contractor", and CITY OF SULLIVAN, MISSOURI, Party of the Second Part, hereinafter called the "Owner".

WITNESSETH: That the Owner and the Contractor for the consideration hereinafter named agree as follows:

ARTICLE 1. Scope of Work:

The Contractor shall furnish all of the labor, materials, machinery, and equipment and perform all of the work outlined in the specifications entitled **Well 6 Control Systems and Panel,** furnished by the City of Sullivan Engineering Department, 210 West Washington, Sullivan, Missouri.

The Work to be done under this Contract consists of constructing and completing all work described in the proposal, attached.

ARTICLE 2. Time of Completion:

The work to be performed under this Contract shall be commenced seven (7) days after being given written notice to proceed from the City and shall be completed in one hundred twenty (120) calendar days.

It is mutually understood and agreed that time is the essence of this Agreement and in the event said work is not completed on or before the date named above for its completion, party of the first part, the Contractor, shall pay liquidated damages to the Owner of $500.00 per day. Those damages shall be used to pay for the extra time required for the completion of the work and for the delays or damages to the traveling public affected by the project. Extra time shall in all cases be construed as the time required for completion after the date herein named. Extensions of time granted by the party of the second part, the Owner, for completion of the Contract on account of fire, strikes, or acts of Providence shall not be construed as extra time. The amount of such expense and services shall be determined by the Engineer, shall be reported to him in writing to the Owner, and shall be withheld from any money due the Contractor and paid to the proper parties.

ARTICLE 3. The Contract Sum:

The Owner shall pay the Contractor for the performance of the Contract a sum not-to-exceed _____(_____) for the performance of the Contract, subject to additions and deductions provided herein, in current funds at the prices named in the proposal attached to and a part of these documents and the contract.

ARTICLE 4. Progress Payments:

The Owner shall make payments on account of the Contract as provided therein as follows:

Contractor shall submit pay requests no later than the last week of the month to be paid by the first Wednesday after the third Tuesday of the following month. Contractor shall certify and submit to the Engineer, an estimate of the amount and fair value of the work done, as a basis for partial payments therefore. The ten (10) percent (retainage) which is deducted each month is reserved by the City as partial guaranty of the faithful execution of the Contract by the Contractor.

It is understood and agreed that no partial payment shall be made to the Contractor until the Contractor shall furnish to the Engineer either the original or a duly certified copy of his and each of his subcontractor's payrolls and satisfactory proof of payment of, or satisfactory release thereof of all bills for services, materials, tools, supplies, and subcontractors. (i.e. lien waivers).

Requests shall be submitted on the City of Sullivan standard partial pay and final pay request and payroll forms contained within these documents.

ARTICLE 5. Acceptance and Final Payment:

The Contractor shall submit to the City a sworn affidavit that all bills for labor, service, materials, and subcontractors have been paid and that there are no suits pending in connection with the work done or labor and materials furnished under the Contract. All prior certificates and estimates, being approximate only, are subject to correction in the final estimate and payment. The Contractor with this contract hereby warrants all of the work done under this contract for a period of one (1) year following the completion of the project. Upon completion, the Contractor shall submit to the City a written one (1) year warranty on total project. Failure of the Contractor to submit a written warranty does not release the Contractor of this warranty in any way.

If, after the work has been substantially completed, full completion thereof is materially delayed through no fault of the Contractor, the City shall upon certificate without terminating the Contract, make payment of the balance due for that portion of the work fully completed and accepted. Such payment shall be made under the terms and conditions covering final payment, and it shall not constitute a waiver of claims by the City.

ARTICLE 6. The Contract Documents:

The information for and instruction to bidders, the proposal, the bond, the general conditions of the contract, the specifications, and the drawings, together with the agreement, form the contract and they are as fully a part of this contract as if thereto attached or repeated.

ARTICLE 7. Prevailing Wage:

Contractor shall ensure that all labor performed in construction shall be compensated at prevailing wage, in accordance with the Missouri Division of Labor Standards Annual Wage Order No. 25, Section 028, (or the most current version thereof) applicable to Crawford County. Certified Payroll Sheets complying with the current wage order shall be submitted with each request for payment. Prevailing Wage is not required for projects less than $75,000 for total project.

ARTICLE 8. Periods of Excessive Unemployment:

Contractor shall ensure that Section 290.550 through 290.580 RMSo (2000), inclusive are satisfied, in that only Missouri laborers or laborers from nonrestrictive states are employed on this project, and shall include these requirements in any subcontract entered by Contractor for this project.

ARTICLE 9. Choice of Law and Venue Provision:

Choice of Law: This contract shall be deemed to have been fully executed, made by the parties in, and governed by the laws of the State of Missouri for all purposed and intents. Venue shall be vested in courts of appropriate jurisdiction in Franklin County, Missouri.

ARTICLE 10. Compliance with City Code:

Contractor shall be in compliance with all City Codes and Ordinances.

IN WITNESS WHEREOF, the parties have hereto executed this Agreement the date of the year first above written.

CITY OF SULLIVAN, MISSOURI

_____

By: Dennis Watz, Mayor Date

Attest:

_____

City Clerk, Janice Koch

Contractor

_____

By: Date

Attest:

_____

Secretary

ACKNOWLEDGMENT WHERE THE CONTRACTOR
IS A CORPORATION

STATE OF MISSOURI)
)
COUNTY OF)

On this _____day of _____, 20_____, before me appeared _____, to me personally known, who being by me duly sworn did say that he is the President (other officer or agent), of _____Corporation, a corporation of the State of _____, and that the seal affixed to the foregoing instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said _____ acknowledged said instrument to be the free act and deed of said corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

_____
Notary Public

My Commission Expires: _____

ACKNOWLEDGMENT WHERE THE CONTRACTOR
IS A PARTNERSHIP

STATE OF MISSOURI)
)
COUNTY OF)

On this _____ day of _____, 20____ before me appeared _____, to me personally know, who being by me duly sworn did say he (she) is a member of the partnership of _____, and that as such partner he (she) has authority to execute the foregoing instrument on behalf of said partnership, ad acknowledge that he (she) executed the same as his (her) free act and deed and as the free act and deed of said partnership.

IN TESTIMONY WHEREOF, I have hereunto set my and affixed my official seal and day and year first above written.

_____
Notary Public

My Commission Expires: _____

EXHIBIT A

THIS FORM MUST BE COMPLETED AND ENCLOSED WITH THE BID

FRANKLIN/CRAWFORD COUNTY
DOMESTIC PRODUCTS PROCUREMENT ACT (BUY AMERICAN)

The Missouri Domestic Products Procurement Act (34.350-34.359 RSMo) requires that for all bids with a value of $25,000 or more, the goods or commodities purchased by any public agency (which definition includes all political subdivisions of the State, including counties) or used or supplied in the construction, alteration, repair, or maintenance of any public works must be **manufactured or produced** in the United States. As defined in 34.350 RSMo, United States means the United States of America, the District of Columbia, and all territories and possessions subject to the jurisdiction of the United States. The law also requires that the bidder must provide proof of compliance. **Note: In general, if an import tariff is applied to an item, it does not qualify for the Buy American preference. In addition, Most Favored Nation status does not allow application of the preference.**

Section A – All Products Are Manufactured or Produced In U.S.
If all products bid qualify as domestic products under Missouri law, complete only Section A.

I hereby certify that all products qualify as domestic, that the information provided is true and correct, and complies with all provisions of Sections 34.350-34.359 RSMo. I understand that any misrepresentation herein constitutes the commission of a class A misdemeanor pursuant to Section 34.355 of the Revised Statutes of Missouri.
SIGNATURE
COMPANY NAME

If Section A is completed, do not complete Section B.

Section B – Only One Product Line or No Products Are Manufactured or Produced In U.S.
If only one product line or no products are manufactured or produced in the U.S. complete only section B.

I hereby certify that there is only one product line or no product manufactured or produced in the U.S., that the information provided is true and correct, and complies with all provisions of Sections 34.350-34.359 RSMo. I understand that any misrepresentation herein constitutes the commission of a class A misdemeanor pursuant to Section 34.355 of the Revised Statutes of Missouri.
SIGNATURE
COMPANY NAME

Section C – Products May Qualify Because of Qualifying Treaty
If some or all products bid qualify for domestic status because of a trade treaty, etc., then the bidder must identify each product, country and qualifying treaty, etc. below. The bidder must list ALL products which are or may qualify as domestic below. If more space is needed, please copy this form and submit as an attachment.

BID ITEM NUMBER(S)	COUNTRY WHERE MANUFACTURED OR PRODUCED	QUALIFYING TREATY, LAW, AGREEMENT, OR REGULATION

SECTION C

I hereby certify that the specific items listed above are domestic, that the information provided is true and correct, and complies with all provisions of Sections 34.350-34.359 RSMo. I understand that any misrepresentation herein constitutes the commission of a class A misdemeanor pursuant to Section 34.355 of the Revised Statutes of Missouri.

SIGNATURE
COMPANY NAME

NOTICE OF AWARD

TO Contractor

Address

Address

Project Description: Well 6 Control Systems and Panel

The City of Sullivan has considered the Bid submitted by you for the above described Work in response to its Invitation for Bids and Information for Bidders.

You are hereby notified that your Bid has been accepted for items in the amount of
$ XXX.XX, _____.

You are required by the Information for Bidders to execute the Contract Agreement and furnish the required Contractors Bonding and Certificates of Insurance within ten (10) calendar days from the date of this Notice.

If you fail to execute said Agreement and to furnish said Bond within ten (10) calendar days from the date of this Notice, said City of Sullivan will be entitled to consider all your rights arising out of the City of Sullivan's acceptance of your Bid as abandoned and as a forfeiture of your Bid Bond. The City of Sullivan will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the City of Sullivan.

Dated this ___ day of _____, 20__.

Owner: CITY OF SULLIVAN

By: _____

City Engineer

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged

By_____

This the_____ day of _____,_____.

Title_____

Employer Identification Number _____

NOTICE TO PROCEED

TO Contractor

Address

Address

Project Description: Well 6 Control Systems and Panel

You are hereby notified to commence Work in accordance with the Agreement dated _____, ____, within **seven** **(7)** calendar days from the date of this NOTICE TO PROCEED, or, on or before _____, ____. You are required to complete the Work in the Contract within **one hundred twenty** **(120)** consecutive calendar days from the date of this Notice. The date of completion of all work is therefore _____, 20__.

Dated this____day of _____ , 20 .

Owner: CITY OF SULLIVAN

By:

City Engineer

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by

_____

(Contractor) Company Name Typed or Printed

_____

Authorized Signature

_____

Name Typed or Printed

This the _____day of _____,_____

Title:_____

Employer identification Number: _____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS THAT WE, the undersigned, _____ (hereinafter called the "Principal"), an *individual, partnership, or corporation, duly authorized by law to do business as a construction contractor in _____and _____ (hereinafter called the "Surety"), a corporation duly authorized to do a surety business under the laws of the State of Missouri, are held and firmly bound unto
(hereinafter called the "Obligee"), in the penal sum of _____ ($_____) dollars lawful money of the United States, for the payment of which well and truly to be made unto said Obligee, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents, as follows:

The conditions of this obligation are such that whereas on the ____ day of _____, 20__, the said Principal entered into a written agreement, which agreement is hereby made a part hereof, with said Obligee for the construction of _____ located at

_____.

Now, therefore, if the said Principal shall faithfully and properly perform the foregoing Contract according to all the terms thereof, and shall as soon as the work contemplated by said Contract is completed, pay to the proper parties all amount due for material, lubricants, oil, gasoline, grain, hay, food, coal, and coke, repairs on machinery, groceries and foodstuff, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums, both compensation and all other kinds of insurance, on said word, and for all labor performed in such work whether by subcontractor or otherwise, then this obligation to be void, otherwise to remain in full force and effect, and may be sued on for his use and benefit by any person furnishing materials or performing labor, either as an individual, or as a subcontractor for any contractor in the name of said Obligee.

*Mark out the inapplicable designation

Note: Performance Bond may be submitted utilizing Surety Companies standard form.

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

IN TESTIMONY WHEREOF, the parties hereunto have cased the execution hereof in _____ original counterparts as of the _____ day of _____, 20____.

_____	_____
PRINCIPAL	SURETY
_____	_____
By	By
_____	_____
Title	Title

ATTEST:

_____ (Seal)

Well 6 Control Systems and Panel

210 West Washington
Sullivan, MO 63080

In accordance with the advertisement inviting proposals regarding the above noted project for the City of Sullivan subject to the conditions, contract documents, specifications, including all addenda, and the plans, which so far as they relate to the proposal are made part of it, the undersigned herewith propose to construct the work specified at the following unit prices: (**Any Items Not Listed In Pay Items Shall Be Considered Incidental To Construction**)

Item No.	Description:	Units	Estimated Quantity	Unit Price	Total Price
1.	Control Panel	L.S.	1	$_____	$_____
2.	PTAC Unit	L.S.	1	$_____	$_____
3.	Labor for removal and installation of existing equipment	L.S.	1	$_____	$_____
4.	Materials	L.S.	1	$_____	$_____

TOTAL BID IN WORDS **$_____**

TOTAL BID IN FIGURES **$_____**

(Signature required on page P2 of P2)

The undersigned bidder proposes and agree, if this bid is accepted, to enter into an agreement with the City in the form included in the Contract Documents to perform and furnish all work as specified or indicated in the contract documents for the contract price and within the contract time indicated in this bid and in accordance the other terms and conditions of the contract documents. The bidder accepts all of the terms and conditions of the advertisement or invitation to bid and instructions to bidders, including with limitation, those dealing with the disposition of bid security. This bid will remain subject to acceptance for 60 days. Bidder will sign and submit the agreement with the bonds and other documents required by the bidding requirements within 10 days after notice of award by the City. In submitting this bid, the bidder represents that he has examined copies of all bidding documents and all addenda (receipt of which is hereby acknowledged) and has attached a signed copy of each hereto.

Bidder has familiarized himself with the nature and extent of the contract documents, work, site conditions, locality, and laws and regulations that in any manner may affect the cost, progress, performance or furnishing of the work. Bidder has performed or obtained any additional examination, investigations, tests, reports, or similar information or data in respect to underground facilities as required to perform and furnish the work at the contract price, within the contract time and in accordance with the other terms and conditions of the contract documents. The bidder has given the City written notice of all conflicts, error, or discrepancies if any that it has discovered in the contract documents.

The bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation. The bidder has not directly or indirectly induced or solicited any other bidder to submit a false or sham bid. The bidder has not solicited or induced any person, firm, or corporation to refrain from bidding. The bidder has not sought by collusion to obtain for itself any advantage over any other bidder or the City.

The bidder understands and agrees that the City may elect to delete portions of the work before or after the award of the contract, and if the City so elects before the award of the contract, the bidder agrees that the bids will be compared and the contract sum and totals adjusted accordingly to account for deleted portions of the work. The summation of the item prices and item totals must equal the overall total amount. In the event of a discrepancy between the overall total amount and the mathematical summation of such item totals, the mathematical summation of the item totals and accounting for any deletions of portions of the work shall form the basis of the award and the basis for the contract sum.

_____

Contractor's Company Name

Mailing Address: _____

_____

_____

_____

_____

Contractor's Authorized Rep. (SIGNATURE)

Date: _____

_____

Authorized Representative's Title

Phone Number: _____

GENERAL CONDITIONS OF THE CONTRACT

SECTION 2.1 DEFINITIONS

2.1.01. CONTRACT DOCUMENTS: The Contract comprises of the following documents, including all additions, deletions and modifications incorporated therein before the execution of the Contract.

a) Legal and Procedural Documents

1. Advertisement
2. Information for Bidders
3. Proposal
4. Bid Guaranty
5. Contract
6. Performance Bond
7. Payment Bond

b) Special Provisions

c) General Conditions of the Contract

d) Detailed Specification Requirements

e) Drawings

2.1.02 ENGINEER is the City of Sullivan Engineer.

2.1.03 OWNER is the City of Sullivan, Missouri.

2.1.04 SUB-CONTRACTOR is any person, firm or corporation with a direct contract with the contractor who acts for or in behalf of the contractor in executing any part of the contract, but does not include one who merely furnishes material.

2.1.05 CONTRACTOR is the contractor named in the contract documents.

2.1.06 PROPOSAL: The offer of a bidder to perform the work described by the contract documents when made out and submitted on the prescribed proposal form, properly signed and guaranteed.

2.1.07 BID GUARANTY: The cashier's check or bidder's bond accompanying the proposal submitted by the bidder, as a guaranty that the bidder will enter into a contract with the owner for the construction of the work, if the contract is awarded to them.

2.1.08 CONTRACT is the agreement covering the performance of the work described in the contract documents including all supplemental agreements thereto and all general and special provisions pertaining to the work or material therefore.

2.1.09 PAYMENT BOND is the approved form of security furnished by the contractor and their surety as a guaranty of good faith on the part of the contractor to pay all fees owed for labor and materials required for the project in accordance with the terms of the contract.

2.1.10 PERFORMANCE BOND is the approved form of security furnished by the contractor and their surety as a guaranty of good faith on the part of the contractor to execute the work in accordance with the terms of the contract.

2.1.11 SURETY is the person, firm or corporation who executes the contractor's payment and performance bond.

2.1.12 SPECIFICATIONS shall mean the legal and procedural documents, general conditions of the contract, together with the modifications thereof, and the detailed specification requirements, with all addenda thereto.

2.1.13 DRAWINGS are those listed in the index to specifications and drawings with all addenda thereto.

2.1.14 WRITTEN NOTICE: Written notice shall be considered as served when delivered in person or sent by registered mail to the individual, firm or corporation or to the last business address of such known to those who serve the notice.

a) Change of Address: It shall be the duty of each party to advise the other parties to the contract as to any change in their business address until completion of the contract.

2.1.15 ACT OF GOD means an earthquake, flood, cyclone or other cataclysmic phenomenon of nature. Rain, wind, flood or other natural phenomenon of normal intensity for the locality shall not be construed as an Act of God and no reparation shall be made to the contractor for damages to the work resulting therefrom.

2.1.16 WORKING DAY: A working day is defined as any day when, in the opinion of the Engineer, soil and weather conditions are such as would permit any major operation of the project for six hours or over unless other unavoidable conditions prevent the contractor's operators. If conditions are such as to stop work in less than six hours, the day will not be counted as a working day. Saturdays, Sundays, national holidays and holidays established by the laws of the state will not be counted as working days.

2.1.17 PREVAILING WAGE RATES: The Contractor shall be required to comply with the Requirements of the "Wage Scale Determinations" as provided for each trade.

2.1.18 CITY: is the City of Sullivan, Missouri who is also the OWNER.

SECTION 2.2 DRAWINGS, SPECIFICATIONS AND RELATED DATA

2.2.01 INTENT OF DRAWINGS AND SPECIFICATIONS: The intent of the drawings and specifications is that the contractor furnishes all labor and materials, equipment and transportation necessary for the proper execution of the work unless specifically noted otherwise. The contractor shall do all the work shown on the drawings and described in the specifications and all incidental work considered necessary to complete the project in a substantial and acceptable manner, and to fully complete the work or improvements, ready for use, occupancy and operation by the owner.

2.2.02 CONFLICT: If there be conflicting variance between the drawings and the specifications, the provisions of the specifications shall control. In case of conflict between the general conditions of the contract or any modifications thereof and the detailed specification requirements, the detailed specification requirements shall control.

2.2.03 DISCREPANCIES IN DRAWINGS: Any discrepancies found between the drawings and specifications and site conditions or any errors or omissions in the drawings or specifications shall be immediately reported to the Engineer, who shall promptly correct such error or omission in writing. Any work done by the contractor after their discovery of such discrepancies, errors or omissions shall be done at the contractor's risk.

2.2.04 ADEQUACY OF DRAWINGS AND SPECIFICATIONS: Responsibility for adequacy of the design and for sufficiency of the drawings and specifications shall be borne by the engineer. The complete requirements of the work to be performed under the contract shall be set forth in drawings and specifications to be supplied by the owner through the Engineer or by the Engineer as representative of the owner. Drawings and specifications furnished shall be in accordance with the contract documents and shall be true and accurate developments thereof.

2.2.05 ADDITIONAL INSTRUCTIONS: Further instructions may be issued by the Engineer during the progress of the work by means of drawings or otherwise to make more clear or specific the drawings and specifications or as may be necessary to explain or illustrate changes in the work to be done.

2.2.06 COPIES OF DRAWINGS AND SPECIFICATIONS FURNISHED: Except as provided for otherwise, all required copies of drawings and specifications necessary for the execution of the work shall be furnished to the contractor without charge.

2.2.07 DRAWINGS AND SPECIFICATIONS AT JOB SITE: One complete set of all drawings and specifications shall be maintained at the job site and shall be available to the City Engineer at all times.

2.2.08 OWNERSHIP OF DRAWINGS AND SPECIFICATIONS: All original or duplicated drawings and specifications and other data prepared by the Engineer shall remain the property of the Engineer and they shall not be reused on other work, but shall be returned to them upon completion of the work.

2.2.09 DIMENSIONS: Figured dimensions on the plans will be used in preference to scaling the drawings. Where the work of the contractor is affected by finish dimensions, these shall be determined by the contractor at the site, and they shall assume the responsibility therefore.

2.2.10 MODELS: All models prepared for this work shall become the property of the owner at the completion of the work.

2.2.11 SAMPLES: All samples called for in the specifications or required by the Engineer shall be furnished by the contractor and shall be submitted to the Engineer for his (her) approval. Samples shall be furnished so as not to delay fabrication, allowing the Engineer reasonable time for the consideration of the samples submitted. See also 2.6.15.

a.) Samples for Tests: Contractor shall furnish such samples of material as may be required for examination and test. All materials and workmanship shall be in accordance with approved samples. All samples of materials for tests shall be taken according to methods provided in the specifications.

b.) Quality Assurance - Concrete: In order to ensure the quality of the contractor's work, samples of all cast in place concrete shall be collected and tested by an independent testing laboratory. The cost of the collection and testing of such samples will be the contractor's expense. The contractor shall provide enough samples for testing as to ensure that all of the work meets the specifications. The engineer can direct the contractor to do additional testing at the contractor's expense if he/she determines the need for additional sampling.

c.) Quality Assurance – Soils and Base Rock: In order to ensure the quality of the contractor's backfill material, all soil and base rock shall be tested by an independent testing laboratory. The cost of the collection and testing of such samples will be the contractor's expense. The contractor shall provide enough samples for testing as to ensure that all of the work meets the specifications. The engineer can direct the contractor to do additional testing at the contractor's expense if he/she determines the need for additional sampling. The subgrade and base rock shall be proof rolled with a fully loaded tandem dump truck in both driving lanes and down the middle.

2.2.12 SHOP DRAWINGS: The contractor shall provide shop drawings, settings, schedules and such other drawings as may be necessary for the prosecution of the work in the shop and in the field as required by the drawings, specifications or Engineer's instructions. Deviations from the drawings and specifications shall be called to the attention of the Engineer at the time of the first submission of shop drawings and other drawings for approval. The Engineer's approval of any drawings shall not release the contractor from responsibility for such deviations. Shop drawings shall be submitted according to the following schedule:

a) Three copies shall be submitted at least thirty (30) days before the materials indicated thereon are to be needed, or earlier if required to prevent delay of the work.

b) The Engineer shall, within five (5) days of the submittal of any shop drawings, return one copy to the contractor marked with all corrections and changes.

c) The contractor shall then correct the shop drawings to conform to the corrections and changes requested by the Engineer.

d) Following completion of such corrections and changes, the contractor shall furnish the City Engineer one copy of the shop drawings conforming to the required corrections and changes.

2.2.13 QUALITY OF MATERIALS: In order to establish standards of quality, the Engineer has, in the detailed specifications, referred to certain products by name and catalog number. This procedure is not to be construed as eliminating from competition other products of equal or better quality by other manufacturers where fully suitable in design.

a) The Contractor shall furnish the complete list of proposed desired substitutions prior to signing of the contract, together with such engineering and catalog data as the Engineer may require.

b) The contractor shall abide by the Engineer's judgment when proposed substitute materials or items of equipment are judged to be unacceptable and shall furnish the specified material or item of equipment in such case. All proposals for substitutions shall be submitted in writing within a reasonable time. No substitute materials shall be used unless approved in writing.

c) An addendum will be issued prior to bid opening, identifying manufacturers of approved equipment. Only general contractors can request approval of equal equipment.

2.2.14 SURVEYS: The contractor shall establish all base lines for location of the principal component parts of the work together with a suitable number of bench marks adjacent to the work. Based upon the information, the contractor shall develop and make all detail staking necessary for construction, including slope stakes, batter boards, stakes for pile locations, back of curb and other working points, lines and elevations. The contractor shall have the responsibility to carefully preserve bench marks, reference points and stakes, and in the case of destruction thereof by the contractor or resulting from their negligence, the contractor shall be charged with the expense and damage resulting therefrom and shall be responsible for any mistakes that may be caused by the unnecessary loss or disturbance of such bench mark, reference points and stakes.

The contractor shall be responsible at his own cost to replace any property corners, iron pipes, or property pins that are disturbed by his work. The survey work by contractor shall include providing survey information for utility company relocations. All surveying work shall be performed by a licensed surveyor within the State of Missouri.

SECTION 2.3 ENGINEER-OWNER-CONTRACTOR RELATIONS

2.3.01 ENGINEER'S RESPONSIBILITY AND AUTHORITY: All work shall be done under the general supervision of the Engineer. The Engineer shall decide any and all questions which may arise as to the quality and acceptability of materials furnished, work performed, rate of progress of work, interpretation of drawings and specifications and all questions as to the acceptable fulfillment of the contract on the part of the contractor.

2.3.02 ENGINEER'S DECISIONS: All claims of the owner or the contractor shall be presented to the Engineer for decision which shall be made in writing within a reasonable time. All decisions of the Engineer shall be final.

2.3.03 SUSPENSION OF WORK: The Engineer shall have the authority to suspend the work, wholly or in part, for such period or periods, as he (she) may deem necessary, due to unsuitable weather, or such other conditions as are considered unfavorable for prosecution of the work, or failure on the part of the contractor to carry out the provisions of the contract or to supply materials meeting the requirements of the specifications. The contractor shall not suspend operation without the Engineer's permission.

2.3.04 INSPECTION OF WORK: All materials and each part or detail of the work shall be subject at all times to inspection by the Engineer, and the contractor will be held strictly to the true intent of the specifications in regard to quality of materials, workmanship and the diligent execution of the contract. Such inspection may include mill, plant, or ship inspection, and any material furnished under these specifications is subject to such inspection. The Engineer shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the contractor as is required to make a complete and detailed inspection.

2.3.05 EXAMINATION OF COMPLETED WORK: If the Engineer requests it, the contractor at any time before acceptance of the work shall remove or uncover such portions of the finished work as may be directed. After examination, the contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering or removing, and the replacing of the covering or making good of the parts removed shall be paid for as extra work, but should the work so exposed or examined prove unacceptable, the uncovering, removing and replacing shall be at the contractor's expense.

2.3.06 CONTRACTOR'S SUPERINTENDENCE: A qualified superintendent, who is acceptable to the Engineer, shall be maintained on the work and give efficient supervision to the work until its completion. The superintendent shall have full authority to act in behalf of the contractor, and all directions given to the superintendent shall be considered given to the contractor. In general, the Engineer's instructions shall be confirmed in writing and always upon written request from the contractor.

2.3.07 LANDS BY OWNER: The owner shall provide the lands shown on the drawings upon which the work under the contract is to be performed and to be used for right-of-way for access. Any delay in furnishing these lands by the owner shall be deemed proper cause for adjustment in the time of completion.

2.3.08 LANDS BY CONTRACTOR: Any additional land and access thereto not shown on the drawings that may be required for temporary construction facilities or for storage of materials shall be provided by the contractor with no liability to the owner. The contractor shall confine their apparatus and storage of materials and operation of their workmen to those areas described in the drawings and specifications and such additional areas which he may provide as approved by the Engineer.

2.3.09 PRIVATE PROPERTY: The contractor shall not enter upon private property for any purpose without obtaining permission, and they shall be responsible for the preservation of all public property, trees, monuments, etc., along and adjacent to the street and/or right-of-way, and shall use every precaution necessary to prevent damage to pipes, conduits, and other underground structures, and shall protect carefully from disturbance or damage all monuments, and property marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed.

2.3.10 ASSIGNMENT OF CONTRACT: Neither the contractor nor the owner shall sublet, sell, transfer, assign or otherwise dispose of the contract or any portion thereof, or of his right, title or interest therein, or their obligation thereunder, without written consent of the other party.

2.3.11 REMOVAL OF CONSTRUCTION EQUIPMENT, TOOLS AND SUPPLIES: At the termination of this contract, before acceptance of the work by the Engineer, the contractor shall remove all of their equipment, tools and supplies from the property of the owner. Should the contractor fail to remove such equipment, tools and supplies, the owner shall have the right to remove them.

2.3.12 SUSPENSION OF WORK BY THE OWNER: The work or any portion thereof may be suspended at any time by the owner provided that he gives the contractor five (5) days written notice of suspension, which shall set forth the date on which work is to be resumed. The contractor shall resume the work upon written notice from the owner and within ten days after the date set forth in the notice of suspension. If the owner does not give written notice to resume work within ten days of the date fixed in the notice of suspension, the contractor may abandon that portion of the work so suspended and shall be entitled to payment in accordance with Paragraph 2.6.10.

2.3.13 OWNER'S RIGHT TO CORRECT DEFICIENCIES: Upon failure of the contractor to perform the work in accordance with the contract documents, including any requirements with respect to the schedule of completion, and after five days written notice to the contractor and receipt of written approval from the Engineer, the owner may, without prejudice to any other remedy he (she) may have, correct such deficiencies.

2.3.14 OWNER'S RIGHT TO TERMINATE CONTRACT AND COMPLETE THE WORK: The owner shall have the right to terminate the employment of the contractor after giving ten days written notice of termination of the contractor in the event of any default by the contractor and upon receiving written notice from the Engineer certifying the cause for such action. In the event of such termination, the owner may take possession of the work and of all materials, tools and equipment thereon and may finish the work by whatever method and means they select.

It shall be considered a default by the contractor whenever they shall:

a) Declare bankruptcy, become insolvent, or assign their assets for the benefit of their creditors.

b) Disregard or violate important provisions of the contract documents or Engineer's instructions, or fail to prosecute the work according to the agreed schedule of completion, including extensions thereof.

c) Fail to provide a qualified superintendent, competent workmen or sub-contractors, or proper materials, or fail to make prompt payment thereof.

2.3.15 CONTRACTOR'S RIGHT TO SUSPEND WORK OR TERMINATE CONTRACT: The contractor may suspend work or terminate contract upon ten days written notice to the owner and Engineer, for any of the following reasons:

a) If an order of any court, or public authority caused the work to be stopped or suspended for a period of ninety days through no act or fault of the contractor or their employees.

b) If the Engineer should fail to act upon any request for payment within thirty days after it is presented in accordance with the general conditions of the contract.

c) If the owner should fail to pay the contractor any sum within thirty days after its award by arbitrators.

2.3.16 RIGHTS OF VARIOUS INTERESTS: Wherever work being done by the owner's forces or by other contractors is contiguous to work covered by this contract, the respective rights of the various interests involved shall be established by the Engineer, to secure the completion of the various portions of the work in general harmony.

2.3.17 SUBCONTRACTS: At the time specified by the contract documents or when requested by the Engineer, the contractor shall submit in writing to the owner for approval of the Engineer the names of the sub-contractors proposed for the work. Sub-contractors may not be changed except at the request or with the approval of the Engineer. The contractor is responsible to the owner for the acts and omissions of their employees. The contract documents shall not be construed as creating any contractual relation between any sub-contractor and owner. The contractor shall bind every sub-contractor by the terms of the contract documents.

For convenience of reference and to facilitate the letting of contracts and subcontracts, the specifications are separated into titled sections. Such separations shall not, however, operate to make the Engineer an arbiter to establish limits to the contracts between contractor and subcontractor.

2.3.18 WORK DURING AN EMERGENCY: The contractor shall perform any work and shall furnish and install any materials and equipment necessary during an emergency endangering life or property. In all cases they shall notify the Engineer of the emergency as soon as practicable, but he (she) shall not wait for instructions before proceeding to properly protect both life and property.

2.3.19 ORAL AGREEMENTS: No oral order, objection, claim or notice by any party to the others shall affect or modify any of the terms of obligations contained in any of the contract documents, and none of the provisions of the contract documents shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or modification thereof in writing, and no evidence shall be introduced in any proceeding of any other waiver or modifications.

2.3.20 SAFETY: The contractor shall employ adequate safety procedures and techniques in the performance of their work.

SECTION 2.4 MATERIALS AND WORKMANSHIP

2.4.01 MATERIALS FURNISHED BY THE CONTRACTOR: All materials used in the work shall meet the requirements of the respective specifications, and no material shall be used until it has been approved by the Engineer. All materials not otherwise specifically indicated shall be furnished by the contractor.

2.4.02 STORAGE OF MATERIALS: Materials shall be so stored as to insure the preservation of their quality and fitness for the work. When considered necessary, they shall be placed on wooden platforms or other hard, clean surfaces, and not on the ground, and/or they shall be placed under cover. Stored materials shall be located so as to facilitate prompt inspection. Private property shall not be used for storage purposes without written permission of the owner or lessee.

2.4.03 CHARACTER OF WORKMEN: The contractor shall at all times be responsible for the conduct and discipline of their employees and/or any sub-contractor or persons employed by sub-contractors. All workmen must have sufficient knowledge, skill and experience to perform properly the work assigned to them. Any foreman or workman employed by the contractor or sub-contractor who, in the opinion of the Engineer, does not perform their work in a skilled manner, or appears to be incompetent or to act is a disorderly or intemperate manner shall, at the written request of the Engineer, be discharged immediately and shall not be employed again in any portion of the work without the approval of the Engineer.

2.4.04 REJECTED WORK AND MATERIALS: All materials which do not conform to the requirements of the contract documents are not equal to samples approved by the Engineer, or are in any way unsatisfactory or unsuited to the purpose for which they are intended, shall be rejected. Any defective work whether the result of poor workmanship, use of defective materials, damage through carelessness or any other given cause shall be removed within ten days after written notice is given by the Engineer, and the work shall be re-executed by the contractor. The fact that the Engineer may have previously overlooked such defective work shall not constitute an acceptance of any part of it.

a) Should the contractor fail to remove work or materials rejected within ten days after written notice to do so, the owner may remove them and may store the material.

b) Correction of faulty work after final payment shall be in accordance with Paragraph 2.6.18.

2.4.05 MANUFACTURER'S DIRECTIONS: Manufactured articles, material and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer unless herein specified to the contrary.

2.4.06 CUTTING AND PATCHING: The contractor shall do all necessary cutting and patching of the work that may be required to properly receive the work of the various trades or as required by the drawings and specifications to complete the structure. The contractor shall restore all such cut or patched work as directed by the Engineer. Cutting of existing structure that shall endanger the work, adjacent property, workmen or the public shall not be done unless approved by the Engineer and under his (her) direction.

2.4.07 CLEANING UP: The contractor shall remove from the owner's property, and from all public and private property, all temporary structures, rubbish, and waste materials resulting from their operation or caused by their employees, and shall remove all surplus materials leaving the site smooth, clean and true to line and grade.

2.4.08 GUARANTY PERIOD: The contractor shall warrant all material furnished, equipment furnished and work performed by them for a period of one year from the date of written acceptance of the work. This warranty shall be documented to the City in writing by an authorized representative of the contractor. Failure of contractor to provide written warranty does not absolve contractor of said warranty.

SECTION 2.5 PROGRESS AND COMPLETION OF WORK

2.5.01 NOTICE TO PROCEED: Following the execution of the contract by the owner, written notice to proceed with the work shall be given to the contractor. The contractor shall begin and shall prosecute the work regularly and uninterruptedly thereafter (unless otherwise directed in writing by the owner) with such force as to secure the completion of the work within the time stated in the proposal.

2.5.02 CONTRACT TIME: The contractor shall complete, in an acceptable manner, all of the work contracted for in the time stated in the proposal. Computation of contract time shall commence on the seventh day following the date of mailing, by regular mail, of the notice to proceed.

2.5.03 SCHEDULE OF COMPLETION: The contractor shall submit, at such times as may reasonably be requested by the Engineer, schedules which shall show the order in which the contractor proposes to carry on the work, with dates at which the contractor will start the several parts of the work, and estimated dates of completion of the several parts.

2.5.04 CHANGES IN THE WORK: The Owner may, as the need arises, order changes in the work through additions, deletions or modifications without invalidating the contract. Compensation and time of completion affected by the change shall be adjusted as described in section 2.5.05, "EXTRA WORK".

2.5.05 EXTRA WORK: New and unforeseen items of work found to be necessary and which cannot be covered by any item or combination of items for which there is a contract price shall be classed as extra work. Extra work is further defined as any work required to complete the project that is not already included within the contract documents or incidental to the work that is to be performed on the project within the Contract Documents. The contractor shall do such extra work and furnish such materials as may be required for the proper completion or construction of the whole work contemplated upon written order from the Owner as approved by the Engineer. In the absence of such written order, no claim for extra work shall be considered. Extra work shall be performed in accordance with these specifications or special provisions shall be done in accordance with the best practice as approved by the Engineer. Extra work required in an emergency to protect life and property shall be performed by the Contractor as required.

The Contractor is contracting with a municipality, and as such, the Mayor and Board of Aldermen have the sole authority to execute change orders for Extra Work on behalf of the Owner. The authority direct the performance of Extra Work by the Contractor may be delegated to the Engineer by an ordinance of the Board of Aldermen.

Engineer is authorized to give written orders to the Contractor to perform minor changes in the project <u>not</u> involving an adjustment in the total contract sum, extension of contract time, and not inconsistent with the intent of the Contract Documents. The contractor shall carry out such written orders promptly.

The Contractor must make written notice of all Extra Work claims promptly before conditions change or are disturbed and in no event later than 21 days after first observance of the conditions requiring the Extra Work. The written notice of Extra Work shall include an explanation of the conditions leading to the Extra Work, estimated Extra Work quantities, and cost estimate of the Extra Work and be issued to the Engineer.

2.5.06 EXTENSION OF CONTRACT TIME: A delay beyond the contractor's control occasioned by an Act of God or act of omission on the part of the owner or by strikes, lockouts, fire, etc., may entitle the contractor to an extension of time in which to complete the work as determined by the Engineer, provided, however, that the contractor shall give immediate notice to the Engineer of the cause of such delay. For any single delay in the project in excess of 2 calendar days, the Contractor shall provide the Engineer written notice of such delay and reasons for said delay within 7 days of the occurrence of the delay.

2.5.07 USE OF COMPLETED PORTIONS: The owner shall have the right to take possession of and use any completed or partially completed portions of the work, notwithstanding that the time for completing the entire work or such portions may not have expired; but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with the contract documents. If such prior use increases the cost of or delays the completion of uncompleted work or causes refinishing of completed work, the contractor shall be entitled to such extra compensation, or extension of time or both, as the Engineer may determine.

SECTION 2.6 MEASUREMENTS AND PAYMENT

2.6.01 DETAILED BREAKDOWN OF CONTRACT AMOUNT: Except in cases where unit prices form the basis for payment under the contract, the contractor shall within ten days of receipt of notice to proceed, submit a complete breakdown of the contract amount showing the value assigned to each part of the work including an allowance for profit and overhead. Upon approval of the breakdown of the contract amount by the Engineer, it shall be used as the basis of all requests for payment.

2.6.02 REQUESTS FOR PAYMENT: The contractor may submit periodically but not more than once each month a request for payment for work done and materials delivered and stored on the site. All pay requests must be made to the Engineer at least 10 days before the last day of the month. The contractor shall furnish the Engineer all reasonable facilities required for obtaining the necessary information relative to the progress and execution of the work. Payment for materials stored on the site will be conditioned upon evidence submitted to establish the owner title to such materials. Each request for payment shall be computed from the work completed on all items listed in the detailed breakdown of contract amount, less a percentage to be retained as detailed in the Contract Agreement until final completion and acceptance of the work, and less previous payments. Where unit prices are specified, the request for payment shall be based on the quantities completed. See also section 2.6.20 and the Contract Agreement. The Contractor shall submit all pay requests on the forms incorporated in these specifications for all partial and final pay requests.

2.6.03 ENGINEER'S ACTION ON A REQUEST FOR PAYMENT: Within ten days of submission of any request for payment by the contractor, the Engineer shall:

a) Approve the request for payment as submitted.

b) Approve such other amounts as he (she) shall decide is due the contractor, informing the contractor in writing of his (her) reason for approving the amended amount.

c) Withhold the request for payment, informing the contractor in writing of their reasons for withholding it.

2.6.04 OWNER'S ACTION ON AN APPROVED REQUEST FOR PAYMENT: Within fourteen days from the date of approval of a request for payment by the Engineer, the owner shall:

a) Approve the request for payment to be mailed on the third Wednesday of the month following the Contractor’s request for payment.

b) Approve to pay such other amount in accordance with Paragraph 2.6.05 as they shall decide is due the contractor, informing the contractor and the Engineer in writing of their reasons for paying the amended amount. Payment of the amended amount will be mailed on the third Wednesday of the month following the Contractor’s request for payment.

c) Notify the Contractor and the Engineer in writing that payment will be withheld in accordance with Paragraph 2.6.05 and informing the contractor and the Engineer of their

reasons for withholding payment.

2.6.05 OWNER'S RIGHT TO WITHHOLD PAYMENT OF AN APPROVED REQUEST FOR PAYMENT: The owner may withhold payment in whole or in part on an approved request for payment to the extent necessary to protect themselves from loss on account of any of the following causes discovered subsequent to approval of a request for payment by the Engineer.

a) Defective work.

b) Evidence indicating the probable filing of claims by other parties against the contractor.

c) Failure of the contractor to make payments to sub-contractors, material suppliers or labor.

d) Damage to another contractor.

2.6.06 RESPONSIBILITY OF THE CONTRACTOR: Unless specifically noted otherwise, the contractor shall furnish all materials and services and perform all the work described by the contract documents or shall have all materials and services furnished and all the work performed at their expense. It shall be the contractor's responsibility to pay for:

a) Replacement of survey bench marks, reference points and stakes provided by the owner under Paragraph 2.2.14 and all construction staking.

b) Lands by contractor provided in accordance with Paragraph 2.3.08.

c) Insurance obtained in accordance with Paragraphs 2.7.01 and 2.7.02.

d) Fire insurance obtained in accordance with Paragraph 2.7.03.

e) Payment and Performance bond obtained in accordance with Paragraph 2.7.04.

f) Royalties required under Paragraph 2.7.05.

g) Permits and licenses required of the contractor and sub-contractors.

2.6.07 PAYMENT FOR UNCORRECTED WORK: Should the Engineer direct the contractor not to correct work that has been damaged or that was not performed in accordance with the contract documents, an equitable deduction from the contract amount shall be made to compensate the owner for the uncorrected work.

2.6.08 PAYMENT FOR REJECTED WORK AND MATERIALS: The removal of work and materials rejected under Paragraph 2.4.04 and the re-execution of acceptable work by the contractor shall be at the expense of the contractor, and they shall pay the cost of replacing the work of other contractors destroyed or damaged by the removal of rejected work or materials and the subsequent replacement of acceptable work.

a) Removal of rejected work or materials and storage of materials by the owner in accordance with Paragraph 2.4.04 shall be paid by the contractor within thirty days after

written notice to pay is given by the owner. It the contractor does not pay the expenses of such removal and after ten days written notice being given by the owner of their intent to sell the materials at auction or at private sale and shall pay to the contractor the net proceeds therefrom after deducting all the cost and expenses that should have been borne by the contractor.

2.6.09 PAYMENTS FOR EXTRA WORK: Written notice of claims for payments for extra work shall be given by the contractor within ten days after receipt of instructions from the owner as approved by the Engineer to proceed with the extra work and also before any work is commenced, except in emergency endangering the life or property. No claim shall be made valid unless so made. In all cases, the contractor's itemized estimate sheets showing all labor and material shall be submitted to the Engineer. The owner's order for extra work shall specify any extension of the contract time and one of the following methods of payments:

a) Unit prices or combinations of unit prices which formed the basis of the original contract.

b) A lump sum based on the contractor's estimate, accepted by the owner, and approved by the Engineer.

c) Forced account as described in Section 2.6.19.

2.6.10 PAYMENT FOR WORK SUSPENDED BY THE OWNER: If the work or any part thereof shall be suspended by the owner and abandoned by the contractor as provided in Paragraph 2.3.13, the contractor will then be entitled to payment for all work done on the portions so abandoned.

2.6.11 PAYMENT FOR WORK BY THE OWNER: The cost of the work performed by the owner in removing construction equipment, tools and supplies in accordance with Paragraph 2.3.12 and in correcting deficiencies in accordance with Paragraph 2.3.14 shall be paid by the contractor.

2.6.12 PAYMENT FOR WORK BY THE OWNER FOLLOWING HIS TERMINATION OF THE CONTRACT: Upon termination of the contract by the owner in accordance with Paragraph 2.3.14, no further payments shall be due the contractor until the work is completed. If the unpaid balance of the contract amount shall exceed the cost of completing the work including all overhead costs, the excess shall be paid to the contractor. If the cost of completing the work shall exceed the unpaid balance, the contractor shall pay the difference to the owner. The cost incurred by the owner, as herein provided, and the damage incurred through the contractor's default, shall be certified by the owner, and approved by the Engineer.

2.6.13 PAYMENT FOR WORK TERMINATED BY THE CONTRACTOR: Upon suspension of the work or termination of the contract by the contractor within accordance with Paragraph 2.3.15, the contractor shall recover payment from the owner for the work performed.

2.6.14 PAYMENT FOR SAMPLES AND TESTING OF MATERIALS: Samples furnished in accordance with Paragraph 2.2.11 shall be furnished by the contractor at their expense.

a) Testing of samples and materials furnished in accordance with Paragraph 2.2.11 shall be arranged and paid for by the contractor.

2.6.15 RELEASE OF LIENS: The contractor shall deliver to the owner a complete release of all liens arising out of this contract before the retained percentage or before the final request for payment is paid. If any lien remains unsatisfied after all payments are made, the contractor shall refund to the owner such amounts as the owner may have been compelled to pay in discharging of such liens including all costs and a reasonable attorney's fee.

2.6.16 ACCEPTANCE AND FINAL PAYMENT: When the contractor shall have completed the work in accordance with the terms of the contract documents, the Engineer shall certify his (her) acceptance to the owner and his (her) approval of the contractor's final request for payment, which shall be the contract amount plus all approved additions less all approved deductions (including retention) and less previous payments made. The request for final payment shall be made on the form contained in these specifications. The contractor shall furnish evidence that they have fully paid all debts for labor, material, and equipment incurred in connection with the work, following which the owner shall accept the work and release the contractor except as to the conditions of the performance bond, any legal rights of the owner, required guarantees, and corrections of faulty work after final payment, and shall authorize payment of the contractor's final request for payments per the Contract Agreement. The contractor must allow sufficient time between the time of completion of the work and approval of the final request for payment for the Engineer to assemble and check the necessary data.

2.6.17 TERMINATION OF CONTRACTOR'S RESPONSIBILITY: The contract will be considered complete when all work has been finished, the final inspection made by the Engineer, and the project accepted in writing by the owner. The contractor's responsibility shall then cease, except as set forth in their performance bond, as required by the guaranty period in accordance with Paragraph 2.4.08 and as provided in Paragraph 2.6.18.

2.6.18 CORRECTION OF FAULTY WORK AFTER FINAL PAYMENT: The approval of the final request for payment by the Engineer and the making of the final payment by the owner to the contractor shall not relieve the contractor of responsibility for the faulty materials or workmanship. The owner shall promptly give notice of faulty materials or workmanship and the contractor shall promptly replace any such defects discovered within two years from the date of written acceptance of the work. The Engineer shall decide all questions arising under this paragraph, and all such decisions shall be subject to arbitration.

2.6.19 PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK: All extra work done on a force account basis will be paid for in the manner hereinafter described, and the compensation thus provided shall be accepted by the Contractor as payment in full for the use of small tools, superintendent's services, timekeeper's service, premium on bond, and all other overhead expenses incurred in the prosecution of all extra work done on a force account basis. Payment will be made as follows:

a) For all materials purchased by the contractor and used in this specific work, they will receive the actual cost of such materials including freight charges, as shown by original receipted bills for materials and freight, to which will be added an amount equal to 15% of the sum thereof.

b) For all labor and foremen, engaged in the specific operation, the Contractor will receive the prevailing wage and will be paid on the project for each and every hour that said labor and foremen are actually engaged in such work, to which will be added an amount equal to 15% of the sum thereof. In addition the contractor shall be paid a sum equal to the workmen's compensation insurance premium and the actual cost of Social Security taxes, computed on the base rate for the class of work involved for the actual amount of the payroll.

c) For any machine, power, and equipment which it may be deemed necessary or desirable to use, the contractor will be allowed reasonable rental price, which shall be agreed upon before such work is begun for each and every hour that said machinery or equipment is in use on such work, to which sum no percentage shall be added.

The contractor's timekeeper and the inspector shall compare records of extra work on a force account basis at the end of each day. Copies of these records shall be made in duplicate by the inspector and shall be signed by both the inspector and the contractor's timekeeper, one copy being forwarded respectively to the engineer and the contractor.

No extra work will be paid for unless unit prices or wages have been agreed upon in writing before such work is started. Bills for force account work must be sworn to and submitted in triplicate to the Engineer with the current monthly estimate.

2.6.20 REQUEST FOR PAYMENT FORM: All Requests for Payment shall use the City of Sullivan partial and final pay requests. Copies of these forms are contained within these contract documents.

SECTION 2.7 INSURANCE, LEGAL RESPONSIBILITY AND PUBLIC SAFETY

2.7.01 INSURANCE: The contractor shall secure and maintain such insurance from an insurance company authorized to write casualty insurance in the state where the work is located as will protect himself, his sub-contractors, and the owner from claims for bodily injury, death or property damage which may arise from operations under this contract. The contractor shall not commence work under this contract until they have obtained all insurance required under this paragraph and shall have filed the certificate of insurance or the certified copy of the insurance policy with the owner. Each insurance policy shall contain a clause providing that it shall not be cancelled by the insurance company without ten days written notice to the owner of intention to cancel. The amounts of such insurance shall be not less than the following:

a) Contractor's Bodily Injury Liability and Property Damage Liability Insurance:

1) Property Damage, Injury or death of one person $2,000,000
2) Injury to more than one person in a single accident $2,525,423

b) Automobile and Truck Public Liability, Bodily Injury, and Property Damage:

1) Property Damage, Injury or death of one person $2,000,000
2) Injury to more than one person in a single accident $2,525,423

Certificates of insurance sent to the City as evidence of insurance shall contain the following statement, and in their absence the certificate will not be satisfactory to the City:

> The insurance evidenced by this certificate will not be cancelled or altered except after ten (10) days from receipt by the City of Written notice thereof.

The Contractor shall ensure that all subcontractors also comply with the requirements of this provision. Insurance are further detailed in the Information for Bidders.

2.7.02 INDEMNITY: The Contractor shall indemnify and save harmless the City of Sullivan from and against all losses and all claims, demands, payments, suits, actions, recoveries and judgements of every nature and description brought or recovered against it by reasons of any omission or act of the contractor, its agents or employees, in the execution of the work or in the guarding of it.

2.7.03 FIRE INSURANCE: In addition to such fire insurance as the contractor elects to carry for their own protection, they shall secure and maintain in the name of the owner policies upon such structures and material and in such amounts as to fully protect the owner. The policies shall be secured from a company which is satisfactory to the owner and delivered to the owner.

2.7.04 PAYMENT AND PERFORMANCE BOND: The Contractor shall, at the time of their execution of the contract, furnish a corporate bond in the sum equal to the contract amount. The form of the bond shall be as the owner may prescribe and with a surety company authorized to do business in the states where the work is located.

2.7.05 PATENTS AND ROYALTIES: If any design, device, material or process covered by letters, patent or copyright is used by the contractor, they shall provide for such use by legal agreement with the owner of the patent or a duly authorized license of such owner, and shall save harmless the owner from any and all loss or expense on account thereof, including its use by the owner.

2.7.07 PERMITS: All permits and licenses necessary for the prosecution of the work shall be secured by the contractor.

2.7.07 LAWS TO BE OBSERVED: The Contractor shall give all notices and comply with all federal, state and local laws, ordinances and regulations in any manner affecting the conduct of the work, and all such orders and decrees as exist, or may be enacted by bodies or tribunals having any jurisdiction or authority over the work, and shall indemnify and save harmless the owner against any claim or liability arising from, or based on the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees.

2.7.08 WARNING SIGNS AND BARRICADES: The Contractor shall provide adequate signs, barricades, red lights, and watchmen and take all necessary precautions for the protection of the work and the safety of the public. All barricades and obstructions shall be protected at night by amber signal lights which shall be kept burning from sunset to sunrise. Barricades shall be of substantial construction and shall be painted white or white-washed to increase their visibility at night. Suitable warning signs shall be so placed and illuminated at night as to show in advance where construction, barricades or detours exist. See detour plan provided by City for placement of devices.

2.7.09 PUBLIC SAFETY AND CONVENIENCE: The Contractor shall at all times so conduct their work as to insure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work, and to insure the protection of persons and property in a manner satisfactory to the Engineer. No road or street shall be closed to the public except with the permission of the Engineer and proper governmental authority. Fire hydrants on or adjacent to work shall be kept accessible to fire fighting equipment at all times. Temporary provisions shall be made by the Contractor to insure the use of sidewalks and the proper functioning of all gutters, sewer inlets, drainage ditches, and irrigation ditches, which shall not be obstructed except as approved by the Engineer.

2.7.10 CROSSING UTILITIES: When new construction crosses highways, railroads, streets or utilities under the jurisdiction of state, county, city or other public agency, public utility or private entity, the contractor shall secure written permission from the proper authority before executing such new construction. A copy of this written permission must be filed with the owner before any work is done. The Contractor will be required to furnish a release from the proper authority before final acceptance of the work.

2.7.11 SANITARY PROVISIONS: The Contractor shall provide and maintain such sanitary accommodations for the use of their employees and those of their sub-contractors as may be necessary to comply with the requirements and regulations of the local and state departments of health and as directed by the Engineer.

JOB SPECIAL PROVISIONS

TABLE OF CONTENTS

(Job Special Provisions shall take precedence over the plans, specifications, and General Conditions whenever in conflict therewith).

1. Governing Specifications And Definition Changes
2. Work zone Traffic Management Plan
3. Utilities
4. General Site Items
5. Quality Assurance
6. Site Access
7. Property Owner Issues
8. Damage to Existing Improvements Not to be Disturbed

All items of work either previously stated or described herein shall include all materials, labor and equipment necessary to complete the work at the locations shown on the plans in accordance with the specifications and the special provisions.

1. GOVERNING SPECIFICATIONS AND DEFINITION CHANGES

Unless specifically noted otherwise within these Contract Documents, the following specifications shall be used for and govern the work on this project:

Construction: As required and inspected by City of Sullivan to include, but not be limited to compliance with the 2017 National Electrical Code and 2018 International Building Code as adopted by the City.

2. WORK ZONE TRAFFIC MANAGEMENT PLAN

All traffic control shall conform to the latest version of the Manual of Uniform Traffic Control Devices (MUTCD).

Contractor must maintain access to all residential and commercial properties at all times unless otherwise agreed upon by the engineer in writing. At least one lane of traffic will remain open at all times unless otherwise agreed upon by the engineer in writing.

Basis of Payment. Payment for the above mentioned work will be at the contracts unit bid price for "Traffic Control."

3. UTILITIES

For informational purposes only, the following is a list of names, addresses, and telephone numbers of the known utility companies in the area of the construction work for this improvement:

Utility Name	Known Required Adjustment	Anticipated Relocation Completion Date
Electric City of Sullivan 210 West Washington Sullivan, MO 63080 Telephone (573) 468-4612		
Telephone Fidelity Cablevision, Inc. 52 North Clark Sullivan, MO 63080 Telephone (573) 364-5206		
Gas Missouri Natural Gas 6 Progress Parkway Union, MO 63084 Telephone (636) 584-8440		

Sewer
City of Sullivan
210 West Washington
Sullivan, MO 63080
Telephone (573) 468-4612

Water
City of Sullivan
210 West Washington
Sullivan, MO 63080
Telephone (573) 468-4612

Cable
Fidelity Cablevision, Inc.
52 North Clark
Sullivan, MO 63080
Telephone (573) 364-5206

The City does not warrant that the above information or the depiction of utility lines or facilities on other bidding documents are complete or accurately reflect either all utilities or their precise locations within or adjacent to the project limits or the status of any relocation work. The bidder is solely responsible to plan and execute its sequence of work only in reliance on information obtained by it from utility companies.

UTILITY COMPANY WORK SCHEDULES: Contractors assume all risk in bidding or planning their work in reliance on this information. By submitting its bid and executing this contract the contractor represents it has taken into account all possible effects of these relocations and its need to coordinate its work with that of the utilities in its planned timing and sequence of work and its manpower and equipment loading. Contractor agrees that it shall have no claim for damages by reason of any direct or indirect effect, by way of delay or otherwise, of any of these utility relocations.

By submitting a bid on this project, contractors certify that they have taken into account in their planned order of work, personnel and equipment loading and schedule all effects of the presence of the utilities, their relocation and all effects, cost and impacts of the same in their bid prices.

Therefore, contractors agree that any effects of the presence of the utilities, their relocation shall not be compensable as a suspension of work, extra work, a change in the work, as a differing site condition or otherwise including without delay, impact, cumulative impact, incidental or consequential damages. Contractor's SOLE REMEDY for the effects of the presence of utilities, delay or any other effects shall be in an excusable delay as provided in Missouri Standard Specifications Section 105.7.3. The contractor waives, itself, its subcontractors and suppliers the compensability of the presence of the utilities, delay in their relocation and any cost to the contractor, its subcontractors and suppliers in any claim or action arising out of or in relation to the work under the contract.

The Contractor's Progress Schedule, required as a part of this section and in conformance with Section 108.4 of the Missouri Standard Specifications shall reflect coordination of the contractor's work with that of the utility relocation including, without limitation, all dependencies of the contractor's or its subcontractors work upon relocation of utility lines and facilities and the effects of the utility relocation on the order of work provided in other parts of the contract documents.

The contractor shall be solely responsible and liable for and hold and save harmless the City from all damages, including incidental and consequential damages, to any utility lines or facilities or interruption of service caused by its subcontractor's operations in the event the contractor or any of its subcontractors begin to work in areas where utility relocations have not been completed.

No direct payment will be made for the contractor's compliance with above section.

4. GENERAL SITE ITEMS

Contractor is to maintain and be responsible for drainage throughout the project duration. The contractor will plate any new or existing structures that may be required due to phasing/construction work.

The Contractor shall keep the work site in an orderly manner, free from trash and other debris. All work materials removed from the site shall be removed by the end of each workday.

Mailboxes within the limits of operations shall be removed, as needed, by the contractor. They shall be set temporarily where they will be accessible to both the carrier and the patron, and shall be properly reset by the contractor at designated locations before final acceptance of the work by the City. Mailboxes damaged by the contractor shall be replaced by the contractor. All mailbox supports set by the contractor shall comply with AASHTO guidelines.

The contractor will maintain access for local trash services.

5. QUALITY ASSURANCE - TESTING

The contractor will be responsible for hiring an independent testing firm that will report directly to the City, in order to obtain and perform all required material testing per the MoDot Materials Manual specifications.

Basis of Payment. Payment for the above mentioned work will be per the MoDot Specifications for Highway Construction and be incidental to the various bid items where testing is required.

6. SITE ACCESS

The Contractor shall access the work area directly for this project. The Contractor, shall be

responsible for coordinating his operations with the property owner(s) and returning the area disturbed to its pre-construction condition.

7. PROPERTY OWNER ISSUES

The Contractor is to provide temporary mailboxes and reset or replace any existing mailboxes disturbed by the construction. Arrangements are to be made with the US Post Office to allow for delivery of mail.

The Contractor is to provide trash collection services if the construction activities prohibit regular trash collection.

The Contractor is to provide ingress/egress access to all property owners at all times by whatever temporary means is available.

These items shall be incidental and the Contractor will not receive any direct payment for these items.

8. DAMAGE TO EXISTING IMPROVEMENTS NOT TO BE DISTURBED

The Contractor shall be responsible for the replacement of all items damaged outside the construction limits or not noted to be removed or adjusted. Any area beyond the temporary construction easement that is disturbed shall be sodded at contractor's sole expense. There is no direct payment for this work; it shall be subsidiary to the bid items.

TECHNICAL SPECIFICATIONS

No direct payment will be made for incidental items necessary to complete the work as described unless specifically provided as a pay item in the contract.

ITEM NO. 1 **Control Panel**

See Control Panel Specifications - Attached

ITEM NO. 2 **PTAC Unit**

PTAC unit shall have a cooling rating of 9200btu and heating rating of 8100btu.heating shall be 3.45Kw 208/230VAC,

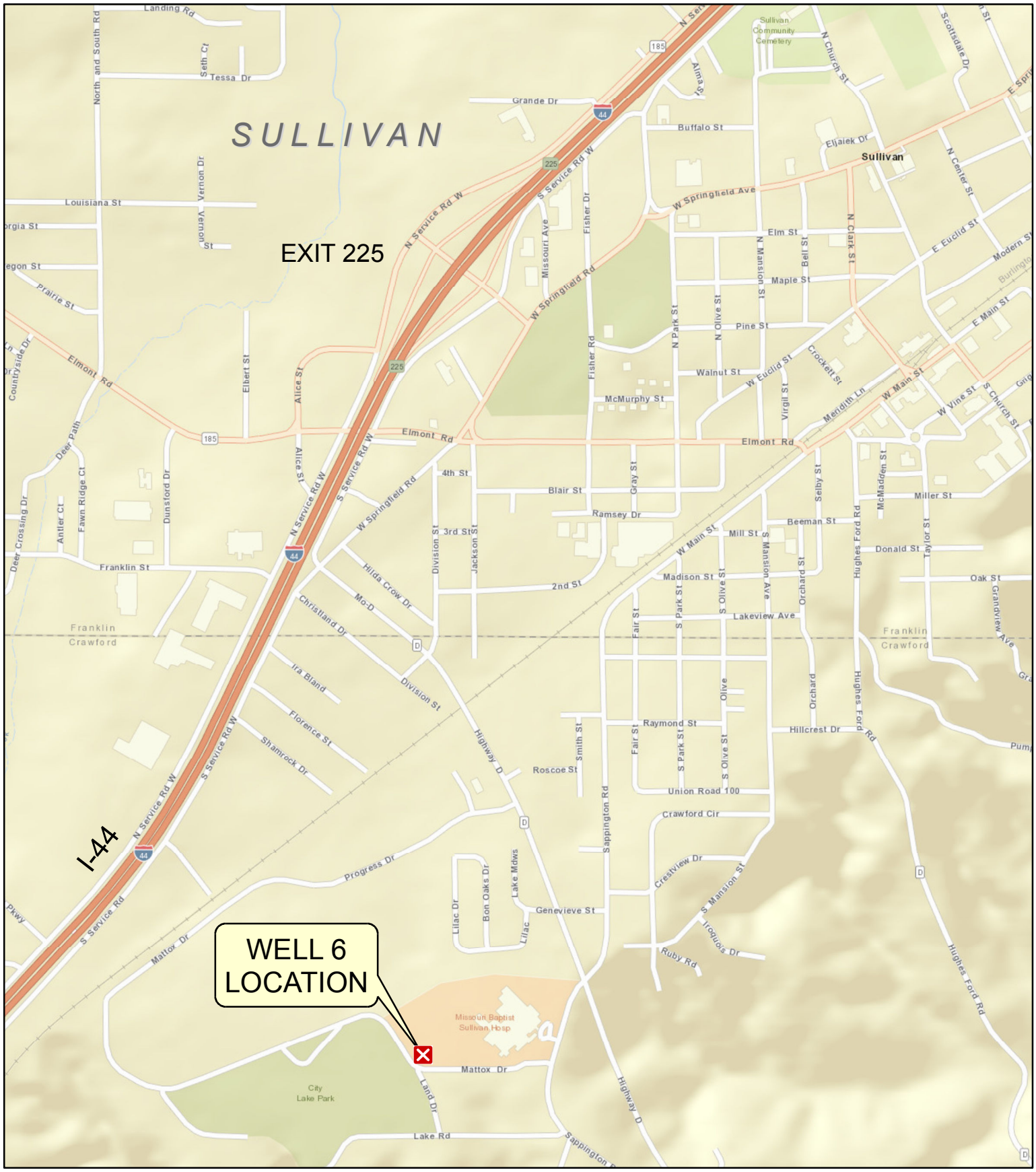
ITEM NO. 3 **Labor**

This is to include, but not limited to, the labor required for the following

Removal of the old equipment
Demo of existing electrical as needed
Re-routing of existing wire and conduit as needed
Re-locating of Mission Control Unit into control panel.
Re- routing of well feeder
Re-routing of conduit and wire for turbidity meter, Cl2 analyzer, and Phosphate Pump
Re-routing of Control wire for Flow switch, and Pressure switch
Replace switches and receptacles
Replace/re-lamp existing interior lighting
Installation and wiring of new PTAC unit
Installation of Dry Type Transformer

ITEM NO. 4 **Materials**

All materials necessary to complete the project



WELL 6

SITE LOCATION MAP

Date: 3/22/2019

0 500 1,000 1,500 2,000 Feet

Missouri
Division of Labor Standards

WAGE AND HOUR SECTION

ERIC R. GREITENS, Governor

Annual Wage Order No. 25

Section 028

CRAWFORD COUNTY

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

Original Signed by
Matt Cowell, Director
Division of Labor Standards

Filed With Secretary of State: **March 9, 2018**

Last Date Objections May Be Filed: **April 9, 2018**

Prepared by Missouri Department of Labor and Industrial Relations

OCCUPATIONAL TITLE	** Date of Increase	*	Basic Hourly Rates	Over-Time Schedule	Holiday Schedule	Total Fringe Benefits
Asbestos Worker (H & F) Insulator			$15.00	FED		$1.44
Boilermaker	6/18		$36.41	126	7	$30.81
Bricklayer and Stone Mason	6/18		$33.25	72	5	$23.57
Carpenter	6/18		$38.17	78	41	$16.50
Cement Mason			$32.39	23	5	$8.90
Communication Technician			$23.60	FED		$14.26
Electrician (Inside Wireman)	6/18		$32.50	28	7	$13.50 + 13%
Electrician (Outside-Line Construction\Lineman)			$44.56	43	45	$5.75 + 36%
Lineman Operator			$38.35	43	45	$5.75 + 36%
Groundman			$29.48	43	45	$5.75 + 36%
Elevator Constructor	6/18	a	$48.54	26	54	$34.395
Glazier	6/18		$27.56	122	76	$12.74
Ironworker			$29.49	11	8	$25.96
Laborer (Building):						
General			$25.26	110	80	$13.09
First Semi-Skilled			$27.16	110	80	$13.09
Second Semi-Skilled			$26.16	110	80	$13.09
Lather			USE CARPENTER RATE			
Linoleum Layer and Cutter	6/18		$33.43	92	26	$17.00
Marble Mason			$32.12	76	51	$15.25
Marble Finisher			$26.67	76	51	$14.48
Millwright	6/18		$38.85	77	41	$17.10
Operating Engineer						
Group I	6/18		$29.16	86	66	$27.17
Group II	6/18		$29.16	86	66	$27.17
Group III	6/18		$27.91	86	66	$27.17
Group III-A	6/18		$29.16	86	66	$27.17
Group IV	6/18		$26.93	86	66	$27.17
Group V	6/18		$29.86	86	66	$27.17
Painter	6/18		$29.27	105	16	$12.74
Pile Driver			USE CARPENTER RATE			
Pipe Fitter		c	$39.25	91	69	$27.18
Plasterer			$31.81	67	3	$18.68
Plumber		c	$39.25	91	69	$27.18
Roofer \ Waterproofer			$32.70	15	73	$17.97
Sheet Metal Worker			$41.55	32	25	$22.72
Sprinkler Fitter - Fire Protection	6/18		$35.84	33	19	$21.42
Terrazzo Worker			$32.40	116	5	$14.26
Terrazzo Finisher			$30.65	116	5	$12.73
Tile Setter			$32.12	76	51	$15.25
Tile Finisher			$26.67	76	51	$14.48
Traffic Control Service Driver			$26.415	22	55	$9.045
Truck Driver-Teamster						
Group I		b	$26.265	35	36	$8.65
Group II		b	$26.425	35	36	$8.65
Group III		b	$26.415	35	36	$8.65
Group IV		b	$26.535	35	36	$8.65

Fringe Benefit Percentage is of the Basic Hourly Rate

**Annual Incremental Increase

OCCUPATIONAL TITLE	** Date of Increase	Basic Hourly Rates	Over-Time Schedule	Holiday Schedule	Total Fringe Benefits

* Welders receive rate prescribed for the occupational title performing operation to which welding is incidental.

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

a - Vacation: Employees over 5 years - 8%, under 5 years - 6%
b - Group I:
Projects over $3 3/4 Million - $26.265
Projects under $3 3/4 Million - $22.765
Group II:
Projects over $3 3/4 Million - $26.425
Projects under $3 3/4 Million - $22.925
Group III:
Projects over $3 3/4 Million - $26.415
Projects under $3 3/4 Million - $22.915
Group IV:
Projects over $3 3/4 Million - $26.535
Projects under $3 3/4 Million - $23.035
c - All work over $7 Million Total Mechanical Contract - $39.25, Fringes - $27.18
All work under $7 Million Total Mechanical Contract - $37.91, Fringes - $21.69
d - Vacation: Employees after 1 year - 2%; Employees after 2 years - 4%; Employees after 10 years - 6%

REPLACEMENT PAGE
CRAWFORD COUNTY
BUILDING CONSTRUCTION - OVERTIME SCHEDULE

FED: Minimum requirement per Fair Labor Standards Act means time and one-half (1½) shall be paid for all work in excess of forty (40) hours per work week.

NO. 11: Means eight (8) hours shall constitute a day's work, with the starting time to be established between 6:00 a.m. and 8:00 a.m. from Monday to Friday. Time and one-half (1½) shall be paid for first two (2) hours of overtime Monday through Friday and the first eight (8) hours on Saturday. All other overtime hours Monday through Saturday shall be paid at double (2) time rate. Double (2) time shall be paid for all time on Sunday and recognized holidays or the days observed in lieu of these holidays.

NO. 15: Means the regular working day shall be scheduled to consist of at least eight (8) hours, but no more than ten (10) consecutive hours, exclusive of the lunch period. The regular working day may be scheduled to commence at any time between the hours of 5:00 a.m. and 10:00 a.m. All work performed in excess of forty (40) hours in one work week, or in excess of ten (10) hours in one work day shall be paid at the rate of one and one-half (1½) times the regular hourly wage scale. Any work performed on a Saturday shall be paid for at the rate of one and one-half (1½) times the regular hourly wage scale unless such Saturday work falls under the category of Saturday Make-Up Day. Any work performed by Employees anywhere on Sunday or recognized holidays, shall be paid for at the rate of double (2) time the regular wage scale. If, during the course of a work week, an Employee is unable to work for any reason, and, as a result, that Employee has not accumulated forty (40) hours of compensable time at the straight time rate, the Employer, at his option may offer the Employee the opportunity to work on Saturday at straight time; provided, however, if during the period worked by said Employee on Saturday, the Employee's compensable time at the straight time rate exceeds forty (40) hours, all time worked in excess of the forty (40) hours will be paid at the rate of one and one-half (1½) times the regular hourly wage scale.

NO. 22: Means a regular work week of forty (40) hours will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A workday is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time may be advanced or delayed if mutually agreed to by the interest parties. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.

NO. 23: Means the regular workday shall consist of eight (8) consecutive hours, exclusive of a thirty (30) minute lunch period, with pay at the regular straight time hourly rate. The workday starts at 8:00 a.m., the quitting time shall be 4:30 p.m. All overtime Monday through Friday, and Saturdays shall be paid at the rate of time and one-half (1½). Double (2) time shall be paid for all work on Sundays and recognized holidays.

NO. 26: Means that the regular working day shall consist of eight (8) hours worked between 6:00 a.m., and 5:00 p.m., five (5) days per week, Monday to Friday, inclusive. Hours of work at each jobsite shall be those established by the general contractor and worked by the majority of trades. (The above working hours may be changed by mutual agreement). Work performed on Construction Work on Saturdays, Sundays and before and after the regular working day on Monday to Friday, inclusive, shall be classified as overtime, and paid for at double (2) the rate of single time. The employer may establish hours worked on a jobsite for a four (4) ten (10) hour day work week at straight time pay for construction work; the regular working day shall consist of ten (10) hours worked consecutively, between 6:00 a.m. and 6:00 p.m., four (4) days per week, Monday to Thursday, inclusive. Any work performed on Friday, Saturday, Sunday and holidays, and before and after the regular working day on Monday to Thursday where a four (4) ten (10) hour day workweek has been established, will be paid at two times (2) the single time rate of pay. The rate of pay for all work performed on holidays shall be at two times (2) the single time rate of pay.

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CRAWFORD COUNTY
BUILDING CONSTRUCTION - OVERTIME SCHEDULE

NO. 28: Means a regular workday shall consist of eight (8) hours between 7:00 a.m. and 5:30 p.m., with at least a thirty (30) minute period to be taken for lunch. Five (5) days a week, Monday through Friday inclusive, shall constitute a work week. The Employer has the option for a workday/workweek of four (4) ten (10) hour days (4-10's) provided:

-The project must be for a minimum of four (4) consecutive days.
-Starting time may be within one (1) hour either side of 8:00 a.m.
-Work week must begin on either a Monday or Tuesday: If a holiday falls within that week it shall be a consecutive work day. (Alternate: If a holiday falls in the middle of a week, then the regular eight (8) hour schedule may be implemented).
-Any time worked in excess of any ten (10) hour work day (in a 4-10 hour work week) shall be at the appropriate overtime rate.

All work outside of the regular working hours as provided, Monday through Saturday, shall be paid at one & one-half (1½) times the employee's regular rate of pay. All work performed from 12:00 a.m. Sunday through 8:00 a.m. Monday and recognized holidays shall be paid at double (2) the straight time hourly rate of pay. Should employees work in excess of twelve (12) consecutive hours they shall be paid double time (2X) for all time after twelve (12) hours. Shift work performed between the hours of 4:30 p.m. and 12:30 a.m. (second shift) shall receive eight (8) hours pay at the regular hourly rate of pay plus ten (10%) percent for seven and one-half (7½) hours work. Shift work performed between the hours of 12:30 a.m. and 8:00 a.m. (third shift) shall receive eight (8) hours pay at the regular hourly rate of pay plus fifteen (15%) percent for seven (7) hours work. A lunch period of thirty (30) minutes shall be allowed on each shift. All overtime work required after the completion of a regular shift shall be paid at one and one-half (1½) times the shift hourly rate.

NO. 32: The regular working day shall consist of eight (8) hours of labor on the job between six (6) a.m. and four (4) p.m. and the regular working week shall consist of five (5) consecutive eight (8) hour days of labor on the job beginning with Monday and ending with Friday of each week. The normal work week is 40 hours. All full-time or part-time labor performed during such hours shall be recognized as regular working hours and paid for at the regular hourly rate. All work performed during regular work hours on Saturdays will be paid at time and one-half (1½). All work performed outside of regular working hours and performed during the regular work week, shall be at double (2) times the regular rate, except that the first two (2) hours following the regular work day shall be paid at one and one-half (1½) times the regular rate. An early starting time of 6:00 a.m. may be used mutually agreed upon by the interested parties. SHIFT RATE: Shift work would start after 4:00 p.m. to 6:00 a.m. The first 8 hours would be at 115% of the basic wage rate. Overtime Monday through Friday would be at 1½ of base shift rate. Saturday regular work day hours – 1½ of base shift rate. Saturday – work after 8 hours – 2 times the basic wage rate. Sunday and Holidays – 2 times the basic wage rate. All work performed on recognized holidays and Sundays shall be paid double (2) time. Appropriate overtime rates to be based on fifteen minute increments.

NO. 33: Means the standard work day and week shall be eight (8) consecutive hours of work between the hours of 6:00 a.m. and 6:00 p.m., excluding the lunch period Monday through Friday, or shall conform to the practice on the job site. Four (4) days at ten (10) hours a day may be worked at straight time, Monday through Friday and need not be consecutive. All overtime, except for Sundays and holidays shall be at the rate of time and one-half (1½). Overtime worked on Sundays and holidays shall be at double (2) time.

NO. 35: Means a regular work week of forty (40) hours, will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof maybe worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A work day is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time maybe advanced or delayed if mutually agreed to by the interested parties. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.

NO. 43: Eight (8) hours shall constitute a work day between the hours of 7:00 a.m. and 4:30 p.m. Forty (40) hours within five (5) days, Monday through Friday inclusive, shall constitute the work week. Work performed in the 9th and 10th hour, Monday through Friday, shall be paid at time and one-half (1½) the regular straight time rate of pay. Contractor has the option to pay two (2) hours per day at the time and one-half (1½) the regular straight time rate of pay between the hours of 6:00 a.m. and 5:30 p.m., Monday through Friday. Work performed outside the regularly scheduled working hours and on Saturdays, Sundays and recognized legal holidays, or days celebrated as such, shall be paid for at the rate of double (2) time.

REPLACEMENT PAGE
CRAWFORD COUNTY
BUILDING CONSTRUCTION - OVERTIME SCHEDULE

NO. 67: Means eight (8) hours shall constitute a day's work, with a flexible starting time to begin between 6:00 a.m. to 8:00 a.m., five (5) days a week, Monday through Friday. Any work over eight (8) hours in any one day shall be at the overtime rate, which is time & one-half (1½). Any work on Saturday shall be at time & one-half (1½), unless a Make-Up Day due to inclement weather is in effect. Any work on Sundays or holidays shall be at double (2) time. Four (4) days, ten (10) hours each day to be worked during Monday through Friday, shall be paid at straight time. A Make-Up Day Due To Inclement Weather Only - Employee(s) will be permitted to work an eight (8) hour make-up day on Saturday only, and the employee will receive the regular straight time wage rate.

NO. 72: Means that except as is otherwise provided herein, the work week shall be determined to begin at 8:00 a.m. Wednesday and end at 4:30 p.m. on the following Tuesday. Except as herein provided, working hours are from 8:00 a.m. to 11:55 a.m. and 12:30 p.m. to 4:25 p.m. and no more than the regular hours shall be worked during the forenoon or afternoon at the regular rate. In the case of days of inclement weather starting time and quitting time may be adjusted so long as the hours worked on such days do not exceed eight (8) and do not extend beyond 4:30 p.m. In circumstances where the Employee or Employees have regularly been working overtime on a particular day or days, no adjustment in the starting time shall operate to deprive Employees of overtime pay, which they would have otherwise received but for the change in the starting time. The parties understand that the application of the provisions of the preceding sentence will result in Employees receiving overtime pay even where they have not worked more than with (8) hours on a particular day. Regardless of the staring time, the forenoon working hours shall end at 11:55 a.m. and the afternoon working hours shall begin at 12:30 p.m. and end 8 hours and 25 minutes after the staring time fixed by the Employer for forenoon hours. Work performed by an employee on a non-holiday Saturday, except as hereinafter provided, or at night or before or after regular working hours on a non-holiday weekday, shall be considered overtime work, for which Employees working during such time shall be paid at the rate of one and one-half (1½) times their regular hourly wage rate for each hour or fraction thereof, worked during such time. Work performed on a Sunday or the recognized holidays shall be considered overtime work for which the Employee shall be paid twice the amount of his or her regular hourly wage rate for each hour or fraction thereof worked on any such day.

NO. 76: Means the standard workday shall consist of eight (8) hours of work between the hours of 8:00 a.m. and 4:30 p.m. with a thirty (30) minute unpaid lunch hour occurring in the middle of the shift. The standard workweek shall consist of five standard workdays commencing on Monday and ending on Friday. The normal starting and quitting times may be changed by mutual consent of interested parties. All time worked before and after the established eight (8) hour workday, Monday through Friday, and all time worked on Saturday, shall be paid for at the rate of time & one-half (1½) the hourly base wage rate in effect. All time worked on Sunday and holidays shall be paid at the rate of double (2) the hourly wage in effect. All work done on Saturday will be done at time & one-half (1½), unless Saturday shall be used as a make-up day. If an employee should lose one or more days in a work week and use Saturday as a make-up day the pay shall be at the regular hourly base wage rate and benefits.

NO. 77: Means the regular workday shall consist of eight (8) consecutive hours, exclusive of a thirty (30) minute lunch period, with pay at the regular straight time hourly rate. The regular workday shall begin on the job site between the hours of 6:00 a.m. and 8:00 a.m. with the starting time to be determined by the Employer, unless project owner requires different starting time. This adjustable starting time can, at the Employer's option, be staggered to permit starting portions of the work force at various times within the prescribed hours. The Employer may establish a four (4) ten (10) hour shift exclusive of the thirty (30) minute lunch period at the straight time wage rate. Forty (40) hours per week shall constitute a week's work Monday through Thursday. In the event a job is down due to weather conditions, safety or other conditions beyond the control of the Employer, then Friday may, at the option of the employer, be worked as a make-up day at the straight time wage rate. Straight time is not to exceed ten (10) hours a day or forty (40) hours per week. Time and one-half (1 ½) shall be paid for all overtime hours worked during the week, Monday through Friday and for all work performed on Saturday. Double (2) time shall be paid for all time worked on Sunday and recognized holidays.

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CRAWFORD COUNTY
BUILDING CONSTRUCTION - OVERTIME SCHEDULE

NO. 78: Means the regular workday shall consist of eight (8) consecutive hours, exclusive of a thirty (30) minute lunch period, with pay at the regular straight time hourly rate. The regular workday shall begin on the job site between the hours of 6:00 a.m. and 8:00 a.m. with the starting time to be determined by the Employer, unless project owner requires different starting time. This adjustable starting time can, at the Employer's option, be staggered to permit starting portions of the work force at various times within the prescribed hours. The Employer may establish a four (4) ten (10) hour shift exclusive of the thirty (30) minute unpaid lunch period at the straight time wage rate. Forty (40) hours per week shall constitute a week's work Monday through Thursday. In the event a job is down due to weather conditions, safety or other conditions beyond the control of the Employer, then Friday may, at the option of the Employer, be worked as a make-up day at the straight time wage rate. Straight time is not to exceed ten (10) hours a day or forty (40) hours per week. Starting time will be designated by the Employer. Fridays can be worked in lieu of holidays at the employee's option. Time and one-half (1½) shall be paid for all overtime hours worked during the week, Monday through Friday, and for all work performed on Saturday. Double (2) time shall be paid for all time worked on Sunday and recognized holidays. Sundays and holidays may not be used as a make-up day.

NO. 86: The regular workday shall consist of eight (8) consecutive hours, exclusive of a thirty (30) minute lunch period, with pay at the straight time rate with all hours in excess of eight (8) hours in any one day to be paid at the applicable overtime rate at time and one-half (1½). The regular workday shall begin between the hours of 6:00 a.m. and 8:00 a.m. The Employer may have the option to schedule the work week from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be paid at the applicable overtime rate at time and one-half (1½). If the Employer elects to work from Monday through Thursday and is stopped due to inclement weather, holiday or other conditions beyond the control of the Employer, they shall have the option to work Friday at the straight time rate of pay to complete the forty (40) hours for the workweek. All overtime work performed on Monday through Saturday shall be paid at time and one-half (1½) the hourly rate. Fringe benefits shall be paid at the one and one half the hourly rate. All work performed on Sundays and recognized holidays shall be paid at double (2) the hourly rate. Fringe benefits shall be paid at double the hourly rate. Shifts may be established when considered necessary by the Employer. Shift hours and rates will be as follows. If shifts are established, work on the First Shift will begin between 6:00 a.m. and 9:00 a.m. and consist of eight (8) hours of work plus one-half hour unpaid lunch. Hours worked during the first shift will be paid at the straight time rate of pay. The second shift shall start eight hours after the start of the first shift and consist of eight (8) hours of work plus one-half hour unpaid lunch. Work on the second shift will begin between 2:00 p.m. and 5:00 p.m. and be paid the straight time rate plus $2.50 per hour. The third shift shall start eight hours after the start of the second shift and consist of eight (8) hours plus one-half hour unpaid lunch. Work on the third shift will begin between 10:00 p.m. and 1:00 a.m. and be paid the straight time rate plus $3.50 per hour. The additional amounts that are to be paid are only applicable when working shifts. Shifts that begin on Saturday morning through those shifts which end on Sunday morning will be paid at time and one-half these rates. Shifts that begin on Sunday morning through those shifts which end on Monday morning will be paid at double time these rates.

NO. 91: Means eight (8) hours shall constitute a day's work commencing at 7:00 a.m. and ending at 3:30 p.m., allowing one-half (½) hour for lunch. The option exists for the Employer to use a flexible starting time between the hours of 6:00 a.m. and 9:00 a.m. The regular workweek shall consist of forty (40) hours of five (5) workdays, Monday through Friday. The workweek may consist of four (4) ten (10) hour days from Monday through Thursday, with Friday as a make-up day. If the make-up day is a holiday, the employee shall be paid at the double (2) time rate. The employees shall be paid time and one-half (1½) for work performed on Saturdays, before the regular starting time or after the regular quitting time or over eight (8) hours per work day (unless working a 10-hour work day, then time and one-half (1½) is paid for work performed over ten (10) hours a day) or over forty (40) hours per work week. Work performed on Sundays and recognized holidays shall be paid at the double (2) time rate of pay. SHIFT WORK: When it is necessary for the project to operate in shifts, there will be three (3) eight (8) hour shifts commencing at 8:00 a.m. Shift work must continue for a period of not less than three (3) consecutive work days, two (2) days which must be regular work days (Monday through Friday). In the event the second or third shift of any regular work day shall fall into a Saturday or a holiday, such extension into a Saturday or holiday shall be considered as part of the previous workday and employees shall be paid at the regular shift rate. The first day shift shall work a regular eight (8) hour day at regular rates. The second shift shall be eight (8) hours regular time pay plus $2.50 per hour premium for eight (8) hours work. Third shift will be for eight (8) hours regular time pay plus $3.00 per hour premium for eight (8) hours work.

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CRAWFORD COUNTY
BUILDING CONSTRUCTION - OVERTIME SCHEDULE

NO. 92: Means all work performed from 8:00 a.m. to 4:30 p.m., Monday through Friday, will be at straight time pay up to forty (40) hours per week. All work performed Monday through Friday before 8:00 a.m. and after 4:30 p.m. will be done at time and one-half (1½). All work done on Saturday will be done at time and one-half (1½), unless the employer and employee agree that Saturday shall be used as a make-up day. The Employer may use a flexible starting time of 7:00 a.m. to 8:00 a.m., and quitting time of 3:30 p.m. to 4:30 p.m., and any such different work starting time shall determine whether wages are payable at the straight rate or the premium rate. All work performed on Saturday shall be paid for at time and one-half (1½), unless the Saturday has been used as a make-up day. All work performed on Sunday and holidays shall be paid for at the rate of double (2) time.

NO. 105: Means the regular work day shall be eight (8) hours. Working hours are from six (6) hours before Noon (12:00) to six hours after Noon (12:00). The regular work week shall be forty (40) hours, beginning between 6:00 a.m. and Noon (12:00) on Monday and ending between 1:00 p.m. and 6:00 p.m. on Friday. Saturday work will be paid time and one-half (1½) the regular hourly rate of pay. Work performed on Sundays and recognized holidays shall be paid at double (2) time the regular hourly rate of pay. Saturdays can be a make-up day if weather has forced a day off. But only in the week of the day being lost. Any time worked before six (6) hours before Noon (12:00) or after six (6) hours after Noon (12:00) will be paid at the time and one-half (1½) the regular hourly rate of pay.

NO. 110: Means eight (8) hours between the hours of 8:00 a.m. and 4:30 p.m. shall constitute a work day. The starting time may be advanced one (1) or two (2) hours. Employees shall have a lunch period of thirty (30) minutes. The Employer may provide a lunch period of one (1) hour, and in that event, the workday shall commence at 8:00 a.m. and end at 5:00 p.m. The workweek shall commence at 8:00 a.m. on Monday and shall end at 4:30 p.m. on Friday (or 5:00 p.m. on Friday if the Employer grants a lunch period of one (1) hour), or as adjusted by starting time change as stated above. All work performed before 8:00 a.m. and after 4:30 p.m. (or 5:00 p.m. where one (1) hour lunch is granted for lunch) or as adjusted by starting time change as stated above or on Saturday, except as herein provided, shall be compensated at one and one-half (1½) times the regular hourly rate of pay for the work performed. All work performed on Sunday and on recognized holidays shall be compensated at double (2) the regular hourly rate of pay for the work performed. When working a five 8-hour day schedule and an Employer is prevented from working forty (40) hours, Monday through Friday, or any part thereof by reason of inclement weather (rain or mud), Saturday or any part thereof may be worked as a make-up day at the straight time rate. The Employer shall have the option of working five eight (8) hour days or four ten (10) hour days Monday through Friday. If an Employer elects to work five (5) eight (8) hour days during any work week, hours worked more than eight (8) per day or forty (40) hours per week shall be paid at time and one-half (1½) the hourly rate Monday through Friday. If an Employer elects to work four (4) ten (10) hour days in any week, work performed more than ten (10) hours per day or forty (40) hours per week shall be paid at time and one-half (1½) the hourly rate Monday through Friday. If an Employer is working ten (10) hour days and loses a day due to inclement weather, they may work ten (10) hours Friday at straight time. All hours worked over the forty (40) hours Monday through Friday will be paid at time and one-half (1½) overtime rate. Overtime shall be computed at half-hour intervals. Shift work: Where it is necessary for the project to operate in shifts, a twenty-four (24) hour or sixteen (16) hour daily schedule shall be established for not less than three (3) consecutive days at the wage rates applicable to the work being performed. One-half (1/2) hour in eight (8) hour shift shall be allowed for lunch for which there will be no deduction in the pay of the employee. Employees on the second shift shall be paid twenty-five cents ($.25) per hour more and employees on the third shift fifty cents ($.50) per hour more than those on the first shift. Overtime shall be computed after shift differential is added to base pay.

NO. 116: Means the standard work day shall consist of eight (8) hours of work between the hours of 8:00 a.m. and 4:30 p.m. The standard work week shall consist of five standard work days commencing on Monday and ending on Friday inclusive. All time worked before and after the established eight (8) hour work day, Monday through Friday, and all time worked on Saturdays, shall be paid for at the rate of time & one-half (1½) the hourly base wage rate in effect. All time worked on Sundays and recognized holidays shall be paid for at the rate of double (2) the hourly base wage rate in effect.

NO. 122: Means the regular workday shall be (8) hours. The regular work week shall be forty (40) hours, beginning 6:00 a.m. on Monday and ending 6:00 p.m. on Friday. Saturday will be time and one-half (1½). Sunday and Holidays shall be double (2) time. Saturday can be a make-up day if weather has forced a day off.

REPLACEMENT PAGE
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NO. 126: Means eight (8) hours per day shall constitute a day's work and forty (40) hours per week, Monday through Friday, shall constitute a week's work. The regular starting time shall be 8:00 a.m. If a second or third shift is used, the regular starting time of the second shift shall be 4:30 p.m. and the regular starting period for the third shift shall be 12:30 a.m. These times may be adjusted by the employer. The day shift shall work a regular eight (8) hours shift as outlined above. Employees working a second shift shall receive an additional $0.25 above the regular hourly rate and perform seven and one-half (7½) hours work for eight (8) hours pay. Third shift employees shall be paid an additional $0.50 above the regular hourly rate and work seven (7) hours for eight (8) hours pay. When circumstances warrant, the Employer may change the regular workweek to four (4) ten-hour days at the regular time rate of pay. All time worked before and after the established workday of eight (8) hours, Monday through Friday, and all time worked on Saturday shall be paid at the rate of time and one-half (1½) except in cases where work is part of an employee's regular Friday shift. All time worked on Sunday and recognized holidays shall be paid at the double (2) time rate of pay except in cases where work is part of an employee's previous day's shift. For all overtime hours worked $29.15 of the fringe benefits portion of the prevailing wage shall be paid at the same overtime rate at which the cash portion of the prevailing wage is to be paid. The remaining $1.66 of the fringe benefit portion of the prevailing wage may be paid at straight time.

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NO. 3: All work done on New Year's Day, Decoration Day, July 4th, Labor Day, Veteran's Day, Thanksgiving and Christmas shall be compensated at the double (2) time rate of pay. When any of these holidays fall on a Sunday, the following Monday shall be observed.

NO. 5: All work that shall be done on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day shall be paid twice the amount of his or her regular hourly wage rate for each hour or fraction thereof worked on any such day .

NO. 7: The following days are assigned days and are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. If a holiday falls on a Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week. However, no reimbursement for these eight (8) hours is to be paid to the workman unless worked. If workman are required to work the above enumerated holidays or days observed as such, or on Sunday, they shall receive double (2) the regular rate of pay for such work.

NO. 8: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day, or the days observed in lieu of these holidays, shall be paid at the double time rate of pay.

NO. 16: There shall be seven (7) recognized holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Armistice Day, Thanksgiving Day and Christmas Day. No work on any pretense shall be performed on Christmas Day or Independence Day. Any work performed on the other holidays shall be paid for at two (2) times the regular rate of pay.

NO. 19: All work done on New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day shall be paid at the double time rate of pay. The employee may take off Friday following Thanksgiving Day. However, the employee shall notify his or her Foreman, General Foreman or Superintendent on the Wednesday preceding Thanksgiving Day. When one of the above holidays falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double (2) time rate. When one of the holidays falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double (2) time rate.

NO. 25: All work done on New Year's Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving, Christmas Day, Presidential Election Day, or days locally observed as such, and Saturday and Sunday shall be recognized as holidays and shall be paid at the double (2) time rate of pay. If a named holiday falls on a Saturday, the holiday will be observed on the preceding Friday. When a named holiday falls on Sunday, the Monday after will be observed as the holiday. Appropriate overtime rates to be based on fifteen minute increments.

NO. 26: All work done on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. When a Holiday occurs on Saturday it shall not be observed on either the previous Friday or the following Monday. Such days shall be regular work days. If such a holiday occurs on Sunday it shall be observed on the following Monday.

NO. 36: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workman unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a make-up day when an observed holiday occurs during the work week. Employees have the option to work that make-up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

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NO. 41: The following days shall be observed as legal holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. No work shall be performed on the Fourth of July, Labor Day or Christmas Day. Any work performed on the above holidays shall be paid for at two (2) times the regular straight time rate of pay. When any of the above holidays fall on Sunday, the following Monday shall be observed as such holiday. If a holiday falls on Saturday, it shall not be considered to be observed on the previous Friday or following Monday. Such days shall be regular workdays.

NO. 45: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving, the day before Christmas, and Christmas Day, shall be paid at the double time rate of pay.

NO. 51: All time worked on Sundays and recognized holidays shall be paid for at the rate of double (2) the hourly base wage rate in effect. The Employer agrees to recognize the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. If the holiday falls on Sunday, it shall be recognized on the following Monday. If the holiday falls on a Saturday, it shall be recognized as a Saturday only holiday.

NO. 54: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day shall be paid at the double (2) time rate of pay. When a holiday falls on Saturday, it shall be observed on Friday. When a holiday falls on Sunday, it shall be observed on Monday.

NO. 55: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workmen unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a makeup day when an observed holiday occurs during the work week. Employees have the option to work that make up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

NO. 66: All work performed on Sundays and the following recognized holidays, or the days observed as such, of New Year's Day, Decoration Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day, shall be paid at double (2) the hourly rate plus an amount equal to the hourly Total Indicated Fringe Benefits. Whenever any such holidays fall on a Sunday, the following Monday shall be observed as a holiday.

NO. 69: All work performed on New Year's Day, Memorial Day, July Fourth, Labor Day, Veteran's Day, Thanksgiving Day or Christmas Day shall be compensated at double (2) their straight-time hourly rate of pay. Friday after Thanksgiving and the day before Christmas are also holidays, however, if the employer chooses to work the normal work hours on these days, the employee will be paid at straight -time rate of pay. If a holiday falls on a Saturday, the holiday will be observed on Saturday; if a holiday falls on a Sunday, the holiday will be observed on the following Monday.

NO. 73: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day (or mutually agreed date of the Friday after Thanksgiving Day may be substituted for Veteran's Day), Thanksgiving Day and Christmas Day, or in the event that any of said Holidays falls on Sunday, then the day or days generally recognized as such. Any work performed anywhere on any of the aforesaid Holidays, or on the day or days recognized and observed as such, shall be paid for at double (2) time the regular hourly rate.

NO. 76: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, and Christmas. No work of any pretense shall be performed on Charismas Day or Independence Day. Any work performed on the other holidays shall be paid for at least two (2) times the regular rate of pay. If a holiday falls on a Sunday, the following Monday will be observed. If a holiday falls on a Saturday, the preceding Friday will be observed.

CRAWFORD COUNTY
BUILDING CONSTRUCTION - HOLIDAY SCHEDULE

NO. 80: The following days shall be recognized as Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day. In the event that any of these Holidays fall on a Saturday, the preceding Friday shall be observed; if on a Sunday, the following Monday shall be observed. No work shall be performed on these days except in emergency to protect life or property. All work performed on these holidays shall be compensated at double the regular hourly rate for the work performed. Overtime shall be computed at half hour intervals.

OCCUPATIONAL TITLE	* Date of Increase	Basic Hourly Rates	Over-Time Schedule	Holiday Schedule	Total Fringe Benefits
Carpenter	6/18	$31.58	23	16	$17.10
Cement Mason		$28.10	6	6	$18.38
Electrician (Outside-Line Construction\Lineman)		$44.56	9	12	$5.75 + 36%
Lineman Operator		$38.35	9	12	$5.75 + 36%
Lineman - Tree Trimmer	6/18	$24.53	32	31	$11.44 + 3%
Groundman		$29.48	9	12	$5.75 + 36%
Groundman - Tree Trimmer	6/18	$18.14	32	31	$8.42 + 3%
Laborer					
General Laborer	6/18	$29.26	2	4	$13.82
Skilled Laborer	6/18	$29.26	2	4	$13.82
Millwright	6/18	$31.58	23	16	$17.10
Operating Engineer					
Group I	6/18	$28.34	21	5	$27.06
Group II	6/18	$27.99	21	5	$27.06
Group III	6/18	$27.79	21	5	$27.06
Group IV	6/18	$24.14	21	5	$27.06
Oiler-Driver	6/18	$24.14	21	5	$27.06
Pile Driver	6/18	$31.58	23	16	$17.10
Traffic Control Service Driver		$26.415	28	27	$9.045
Truck Driver-Teamster					
Group I		$29.87	25	21	$12.85
Group II		$30.03	25	21	$12.85
Group III		$30.02	25	21	$12.85
Group IV		$30.14	25	21	$12.85

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

If a worker is performing work on a heavy construction project within an occupational title that is not listed on the Heavy Construction Rate Sheet, use the rate for that occupational title as shown on the Building Construction Rate sheet.

CRAWFORD COUNTY
HEAVY CONSTRUCTION - OVERTIME SCHEDULE

FED: Minimum requirement per Fair Labor Standards Act means time and one-half (1½) shall be paid for all work in excess of forty (40) hours per work week.

NO. 2: Means a regular workweek shall be forty (40) hours and will start on Monday and end on Friday. The Employer shall have the option of working five 8-hour days or four 10-hour days Monday through Friday. If an Employer elects to work five 8-hour days during any workweek, hours worked more than eight (8) per day or 40 per week shall be paid at time and one-half the hourly rate Monday through Friday. If an Employer elects to work four 10-hour days in a week, work performed more than ten (10) hours per day or 40 hours per week shall be paid at time and one-half the hourly rate Monday through Friday. When working a five 8-hour day schedule and an Employer is prevented from working forty (40) hours Monday through Friday, or any part thereof, by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. If an Employer is working a four 10-hour day schedule and loses a day due to inclement weather, he may work 10 hours Friday at straight time. All hours worked over the 40 hours Monday through Friday will be paid at 1 ½ overtime rate. A workday shift is to begin at the option of the Employer, between 6:00 a.m. and not later than 9:00 a.m. However, the project starting time may be advanced or delayed if required. If workmen are required to work the enumerated holidays or days observed as such or Sundays, they shall receive double (2) the regular rate of pay for such work. Overtime shall be computed at one-half (1/2) hour intervals. Shift: The Contractor may elect to work one, two or three shifts on any work. When operating on more than one shift, the shifts shall be known as the day shift, swing shift, and graveyard shift as such terms are recognized in the industry. When two shifts are worked on any operation, the shifts will consist of eight (8) or ten (10) hours exclusive of lunchtime. When three shifts are worked the first day or day shift will consist of eight (8) hours exclusive of lunchtime. The second or swing shift shall consist of seven and one-half (7 1/2) hours work for eight hours pay, exclusive of lunchtime, and the third or the graveyard shift shall consist of seven (7) hours work for eight (8) hours pay, exclusive of the lunchtime. All time in excess of normal shifts shall be considered overtime. Multiple shift (the two or three shift) operation will not be construed on the entire project if at anytime it is deemed advisable and necessary for the Employer to multiple shift a specific operation. However, no shift shall be started between midnight and six a.m. except the graveyard shift on a three-shift operation, or except in an unusual or emergency situation. If an Employer starts a shift between midnight and 6 a.m. except the graveyard shift on a three-shift operation, he shall reimburse all employees for the entire shift at the double time rate. Completion of the second shift on a two-shift operation or completion of the graveyard shift on a three-shift operation that carries over into Saturday morning shall be at the straight time rate. Overtime shall be computed at ½ hour intervals.

NO. 6: Means eight (8) hours shall constitute the regular work day and forty (40) hours a work week, Monday through Friday. The Employer shall establish the starting time between 7:00 a.m. and 9:00 a.m. Time and one-half (1½) shall be paid for work performed on a regular work day before the regular starting time and after the regular quitting time. Double (2) time shall be paid for work performed on Sunday and holidays. At the discretion of the Employer, Saturday can be used for a make-up day. The Employer when working on highway and road work may have the option to schedule the work week for his paving crew only from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be at the applicable overtime rate. If the Employer elects to work from Monday through Thursday and is stopped due to inclement weather (rain, snow, sleet falling) he shall have the option to work Friday at the straight time rate of pay to complete his or her forty (40) hours.

NO. 9: Eight (8) hours shall constitute a work day between the hours of 7:00 a.m. and 4:30 p.m. Forty (40) hours within five (5) days, Monday through Friday inclusive, shall constitute the work week. Work performed in the 9th and 10th hour, Monday through Friday, shall be paid at time and one-half (1½) the regular straight time rate of pay. Contractor has the option to pay two (2) hours per day at the time and one-half (1½) the regular straight time rate of pay between the hours of 6:00 a.m. and 5:30 p.m., Monday through Friday. Worked performed in the first eight (8) hours on Saturday shall be paid at the rate of one and eight tenths (1.8) the regular straight time rate. Work performed outside these hours and on Sundays and recognized legal holidays, or days celebrated as such, shall be paid for at the rate of double (2) time.

CRAWFORD COUNTY
HEAVY CONSTRUCTION - OVERTIME SCHEDULE

NO. 21: Means the regular workday for which employees shall be compensated at straight time hourly rate of pay shall, unless otherwise provided for, begin at 8:00 a.m. and end at 4:30 p.m. However, the project starting time may be advanced or delayed at the discretion of the Employer. At the discretion of the Employer, when working a five (5) day eight (8) hour schedule, Saturday may be used for a make-up day. If an Employer is prohibited from working on a holiday, that employer may work the following Saturday at the straight time rate. However, the Employer may have the option to schedule his work from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be paid at the applicable overtime rate. If the Employer elects to work from Monday through Thursday and is stopped due to circumstances beyond his control, he shall have the option to work Friday or Saturday at the straight time rate of pay to complete his forty (40) hours. If an Employer is prohibited from working on a holiday, that Employer may work the following Friday or Saturday at the straight time rate. Overtime will be at one and one-half (1½) times the regular rate. If workmen are required to work the enumerated holidays or days observed as such, or Sundays, they shall receive double (2) the regular rate of pay for such work.

NO. 23: Means the regular workweek shall start on Monday and end on Friday, except where the Employer elects to work Monday through Thursday, (10) hours per day. All work over ten (10) hours in a day or forty (40) hours in a week shall be at the overtime rate of one and one-half (1½) times the regular hourly rate. The regular workday shall be either eight (8) or ten (10) hours. If a job can't work forty (40) hours Monday through Friday because of inclement weather or other conditions beyond the control of the Employer, Friday or Saturday may be worked as a make-up day at straight time (if working 4-10's). Saturday may be worked as a make-up day at straight time (if working 5-8's). An Employer, who is working a four (4) ten (10) hour day work schedule may use Friday as a make-up day when a workday is lost due to a holiday. A workday is to begin at the option of the Employer but not later than 11:00 a.m. except when inclement weather, requirements of the owner or other conditions beyond the reasonable control of the Employer prevent work. Except as worked as a make-up day, time on Saturday shall be worked at one and one-half (1½) times the regular rate. Work performed on Sunday shall be paid at two (2) times the regular rate. Work performed on recognized holidays or days observed as such, shall also be paid at the double (2) time rate of pay. For all overtime hours worked during the week or on Saturday $16.25 of the fringe benefits portion of the prevailing wage shall be paid at time and one-half (1½). For all overtime hours worked on Sundays or recognized holidays $16.25 of the fringe benefits portion of the prevailing wage shall be paid double time. The remaining $.60 of the fringe benefit portion of the prevailing wage shall be paid at straight time.

NO. 25: Means a regular work week of forty (40) hours, starting on Monday and ending on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof maybe worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A work day is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time maybe advanced or delayed if mutually agreed to by the interest parties. All hours worked on recognized holidays, or days observed as such, double (2) time shall be paid.

NO. 28: Means a regular work week of forty (40) hours will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A workday is to begin between 6:00 a.m. and 9:00 a.m. However, the project starting time may be advanced or delayed if mutually agreed to by the interest parties. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.

NO. 32: Means the overtime rate shall be time and one-half the regular rate for work over forty (40) hours per week. Sundays and Holidays shall be paid at double the straight time rate.

CRAWFORD COUNTY
HEAVY CONSTRUCTION - HOLIDAY SCHEDULE

NO. 4: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, or observed as such, shall be paid at the double time rate of pay. When a Holiday falls on a Sunday, Monday shall be observed. No work shall be performed on Labor Day, except in case of jeopardy to life or property. This is applied to protect Labor Day.

NO. 5: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. If a holiday falls on a Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward a forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workman unless worked. If workmen are required to work the above recognized holidays or days observed as such, or Sundays, they shall receive double (2) the regular rate of pay for such work. The above shall apply to the four 10's Monday through Friday work week. The ten (10) hours shall be applied to the forty (40) hour work week.

NO. 6: All work done on New Year's Day, Decoration Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving and Christmas shall be compensated at the double (2) time rate of pay. When a holiday occurs on Saturday, it shall not be observed on either the previous Friday or the following Monday. Such days shall be a regular workday. If such a holiday occurs on Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day.

NO. 12: All work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day, or days celebrated as such, shall be paid at the double time rate of pay. When one of the foregoing holidays falls on Sunday, it shall be celebrated on the following Monday. When one of the foregoing holidays falls on Saturday, it shall be celebrated on the Friday before the holiday.

NO. 16: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on Sunday, it shall be observed on the following Monday. If a holiday falls on Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid to the worker unless worked. If workers are required to work the above recognized holidays or days observed as such, they shall receive double (2) the regular rate of pay for such work.

NO. 21: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workman unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a make-up day when an observed holiday occurs during the work week. Employees have the option to work that make-up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

NO. 27: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workmen unless worked. An Employer working a four (4) day, ten (10) hour schedule may use Friday as a make-up day when an observed holiday occurs during the work week. Employees have the option to work that make up day. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

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HEAVY CONSTRUCTION - HOLIDAY SCHEDULE

NO. 31: All work performed on New Year's Day, Presidents' Day, Veterans' Day, Good Friday, Decoration Day, Fourth of July, Labor Day, Christmas Eve Day, Christmas Day, Thanksgiving Day and Day after Thanksgiving or days celebrated for the same.

CONTROL PANEL SPECIFICATIONS

1.1 DESCRIPTION OF WORK

A. The Contractor shall provide and install all hardware, software, labor, materials, and equipment required to provide a complete control panel, in strict accordance with the requirements of these plans and specifications.

B. Equipment and Services Summary

(1) Main Control Panel (MCP) with SCADA unit as provided by others, including all engineering design, start-up, and training, per the following specifications.

(1) Disconnect Switch (Well Pump)

1.2 QUALITY ASSURANCE

A. Equipment Qualifications

1. SCADA telemetry units shall be as provided by Systems Integrator. SCADA unit shall be made an integral part of the control panel being manufactured by the systems integrator.

B. Manufacturer's Qualifications

1. It is the intent of these specifications that all motor control and control components be supplied by a single supplier. Controls shall not be assembled on site. System supplier shall be a UL 508 certified facility and shall be regularly engaged in the manufacture of controls for the municipal water industry. The system specified herein shall be the product of a manufacturer having at least ten years experience in the construction of such control equipment.

2. All SCADA programming and system start-up shall be performed by the systems integrator.

3. The control panel manufacturer shall have offices located within 100 miles of the end user’s office to facilitate timely system support.

4. The MCP shall be supplied by the Control Panel Manufacturer.

C. Submittal Documentation

1. Complete submittals shall be provided to the Engineer/Owner for review and approval prior to purchasing of equipment or equipment fabrication. Submittal data shall include the following:

2. Drawings

A master wiring diagram for the control panel(s) shall be submitted for Engineer's review and approval before beginning construction. This diagram shall be drawn in standard ladder logic format. All ladder rungs shall be numbered in the left hand margin, and all relay contacts referenced to these numbers in the right hand margin. Each electrical node in the control schematic shall have a different wire number. A bill of materials and a layout drawing of the enclosure door/inner door/inner bracket components shall appear on this drawing with a listing of nameplates pertaining to the components. Submittal drawings may be on 11" x 17" paper.

3. Product Data

Included in the submittal package shall be data sheets of all equipment used in the control panel, as listed in the bill of materials.

D. As-Built Documentation

1. Complete as-built documentation shall be provided to the Engineer/Owner upon project completion. As-Build data shall include the following:

2. Drawings

Final As-Built drawings shall be on full-size 17" x 22" or 24" x 36" paper, as required. Five (5) sets shall be provided. An additional full-size as-built drawing shall be placed in the control panel.

A waterproof reduced copy of the master "as built" wiring diagram shall be laminated in clear plastic and permanently fastened to the inside of the panel door.

E. Start-up

1. Provide on-site start-up of supplied equipment.

F. Training

1. An on-site training program shall be provided to employees as selected by the Owner, as pertains to supplied equipment. The objective of the training is to provide a common working knowledge concerning the operation of the system. Training shall be broken into sections as follows:

2. Include one (1) four-hour training session provided at the completion of start-up.

G. Warranty

1. System warranty shall be for a period of 1 year commencing upon successful completion of startup. Systems integrator shall not be responsible for contingent liabilities due to any component failure before, during, or after the manufacturer warranty period. Warranty includes parts and labor for all equipment/software/services provided against defects in material and workmanship. Warranty excludes surge/transient damage.

PART 2 – CONTROL SYSTEM OPERATION

2.1 OVERVIEW

A. This station consists of a well with controls at the site.

2.2 CONTROL DESCRIPTION - HARD-WIRED

A. Well Pump

2.3 EQUIPMENT CONTROL

A. The pump(s) shall be controlled through a panel-mounted “Hand-Off-Auto” switch.

B. Pump Hand-Off-Auto Switch

1. Well Pump

Hand: Pump shall be demanded and run continuously until the selector switch is turned to Off or Auto.
Off: Pump shall not be demanded.
Auto: Pump shall be controlled by the SCADA system, as described above.

Manual and Automatic demand of the well is inhibited when any of the following occur:

1. Phase fault
2. Starter Fault (manual reset at starter)

When the well pump runs and flow is detected, chemical feed equipment shall be demanded.

2. CL2 Pump

Hand: Pump shall be demanded and run continuously until the selector switch is turned to Off or Auto.
Off: Pump shall not be demanded.
Auto: Pump shall be demanded when the well pump indicates it is running and the well discharge valve indicates it is open.

3. Phosphate pump

Hand: Pump shall be demanded and run continuously until the selector switch is turned to Off or Auto.
Off: Pump shall not be demanded.
Auto: Pump shall be demanded when the well pump indicates it is running and the well discharge valve indicates it is open.

2.4 ALARMS

A. The alarm system shall operate individual pilot lights as described under General Control Panel Equipment

B. Overload Trip/Starter Fault

A contact closure from the overload relay or fault contact on a starter/contactor shall stop the pump from running in either Hand or Auto. This alarm shall be manually reset via overload relay/starter reset pushbutton.

C. High Turbidity Cutoff

The turbidity meter will activate a contactor to stop the pump if it measures the set point programmed within the meter.

PART 3 - EQUIPMENT

3.1 PUMP CONTROL PANELS SHALL MEET THE FOLLOWING SPECIFICATIONS:

A. Enclosure

1. Enclosure shall be NEMA 12 basic construction and shall have a separate subpanel.

2. Enclosure shall be two-door free-standing on 12" legs, with separate power section on left and control section on right, separated by full inner barrier. Enclosure shall be constructed of 12 gauge steel painted ANSI 61 grey. All hardware on exterior of enclosure shall be stainless steel.

3. Exterior door shall be held shut with padlockable, 3-point door latch, Austin #48-5655SSX, or equal. Padlock is to be provided by the owner. All doors shall be mounted to the enclosure with continuous hinges. Exterior door shall be gasketed to provide a watertight seal to the enclosure.

4. Subpanel shall be 12 gauge mild steel primed and painted white.

5. All circuit breaker toggles, control switches, pushbuttons, elapsed time meters, and indicator lights shall be mounted on or through the door. All panel wiring and equipment layout shall be performed per N.E.M.A. and J.I.C. specifications. N.E.C. gutter spacing shall be observed. A minimum of 6" additional D.I.N. rail shall be provided for future mounting expansion.

B. Power Distribution Block

1. Provide a main power distribution block sized for incoming power to the panel. Each pole of the block shall be supplied with a clear cover for operator protection.

2. Power distribution block shall be Ferraz Shawmut 63000, 67000, or 69,000 series, as required.

C. Surge Protection Device

1. Provide a silicon oxide varistor surge/lightning suppressor connected to the power distribution block or incoming disconnect, and sized for incoming voltage. Minimum ratings shall be 60,000 amps, 1500 Joules.

2. Surge suppressor shall be Delta A Series or approved equal

D. Phase Monitor

1. Where three-phase motors are controlled, provide a plug-in style phase monitor designed to monitor phase loss, under voltage, and phase sequence with a SPDT contact to interrupt all control power in the event of phase loss. Phase monitor shall be supplied with fused protection of the three phase sensing circuit.

2. Phase monitor shall be Diversified Electronics SLA series, Symcom, or approved equal. Fuseholder shall be three-pole Ferraz Shawmut USM_I series, or approved equal.

3. Fuses shall be fast-acting Ferraz Shawmut ATM series, or approved equal.

E. Motor Monitor/Protector

1. Where three-phase motors are controlled, provide a motor protective device designed to monitor phase loss, under voltage, phase sequence, under-current, over-current with a relay output contact to interrupt all control power in the event of alarm. Monitor shall be supplied with current transformers as required.

2. A timer shall be included that will delay the next attempt to restart well if a fault is detected by the monitor.

3. Monitor shall be Eaton Series #C441, Symcom, or approved equal.

F. Circuit Breakers

1. Provide individual, properly sized, thermal-magnetic circuit breaker for each load served. Combination circuit breaker and overload mechanism shall not be allowed. Circuit breakers for motors and other loads shall have a minimum rating of 10,000 AIC (230 vac breakers) or 14,000 AIC (480 vac breakers).

2. Provide individual, properly sized, thermal-magnetic circuit breaker for each of the following, as applicable (see plan sheet):

   a) Main Incoming Power
   b) Well Pump motor load
   c) CL2 Booster Pump
   d) Transformer

G. Solid State Starter

1. Well pump shall be provided with a reduced voltage solid state starter with overload protection and across-the-line bypass contactor for each motor load served. The pump shall be able to be started across-the-line if required via subpanel-mount selector switch and across-the-line contactor with overload relay.

2. Solid state starter shall be Cutler-Hammer IT series with line side surge protector, ABB PST series, Danfoss, or pre-approved equal.

H. Transformer

1. Provide a minimum 20 KVA (or larger, as shown on plans, sized appropriately for the load served), dry-type transformer shall be supplied with primary and secondary short circuit protection. Control power shall be 120 volt. Control circuit shall be connected so that a power outage of any duration does not require manual re-start of system.

I. Loadcenter

1. Provide a 100 A, 16-circuit loadcenter, rated 1-phase, 120/230 vac, with the circuit breakers shown on the Contract Drawings. Loadcenter shall be mounted with circuit breakers accessible through the door of the enclosure, such that enclosure door shall not need to be opened to operate loadcenter circuit breakers.

2. Provide 1 or 2-pole, properly sized circuit breakers for the loads as shown in the plans.

J. Terminal Blocks

1. Numbered terminal blocks shall be supplied for all field terminations. Current capacity of terminal strips shall be equal to the load served. Terminal blocks shall be suitable for minimum 12 AWG wire at not less than 300 volts.

2. Terminal blocks for control interface shall be Entrelec model 115116.07, or approved equal.

K. Power Conditioning

1. Control systems utilizing microprocessor technology shall have power conditioning for incoming power to these pieces of equipment. The following equipment, at a minimum, shall be protected by this surge suppressor (where applicable):

   a) Level controller
   b) Solid state starter 24 vdc power supply
   c) Mission Control Unit
   d) Flow Meter
   e) CL2 Monitor
   f) Turbidity Meter
   g) Phosphate pump

2. The power conditioning equipment shall be Amber Industries model AI-10*A-CM (* = Amp rating).

L. 24 VDC Power Supply

1. Provide 24 VDC power supply to power 4-20 mA current signal equipment and other equipment as required in control panel. Unit shall be rated at 1.5 A DC output, minimum.

M. Signal Line Protector

1. Signal line protectors shall be provided for each 4-20 mA instrumentation loop entering the enclosure (for outdoor enclosures) or entering the building (for indoor enclosures).

2. Surge protector shall be as manufactured by Bourns, or approved equal.

N. Relays

1. Relays shall be general purpose plug-in relays with standard mounting configurations. The relays shall have the number of poles as shown on the drawings with neon indicating lamp and test button integral to each relay. Relay contact ratings shall be minimum 5 amps.

O. Time Delay Relays

1. Time delay relays shall be dial or D.I.P. switch selectable, and shall have contact ratings of not less than 10 amps. Switch settings shall be labeled on the relay.

2. Time delay relays shall be Diversified Electronics TB series, Finder, or approved equal.

P. Selector Switches

1. Selector switches shall be 30 mm oil tight type with lever operators and 10 amp contacts. Knob operators shall not be accepted. Provide selector switches for the following functions (per pump where applicable):

   a) Well Pump “Hand-Off-Auto” (Three position)
   b) CL2 Pump “Hand-Off-Auto” (Three position)

2. Contact blocks shall be provided as required and shall be rated for a nominal voltage of 500 vac and 10 amps. Control switches shall be Cutler-Hammer Series E34 or equal. Contact blocks shall be Cutler-Hammer type 10250T.

Q. Pilot Lights

1. Pilot lights shall be push-to-test, oil-tight industrial units utilizing 120 volt bulbs (unless otherwise specified).

2. Control panel lights shall be modular construction as manufactured by Cutler Hammer, #E34RPB* or approved equal.

3. Contact blocks shall be Cutler-Hammer type 10250T.

4. Provide pilot lights for the following functions (per pump where applicable):
   a) SCADA Demand Amber
   b) Well Pump Run Green

R. Pushbuttons

1. Pushbuttons shall be oil-tight industrial units. Contact blocks shall be provided as required and shall be rated for a nominal voltage of 500 vac and 10 amps.

2. Pushbuttons shall be modular construction as manufactured by Cutler Hammer Series E34 or approved equal.

3. Provide push-buttons for the following functions:
   a) Alarm reset

S. Elapsed Time Meters

1. Provide an elapsed time meter for the well pump. Meter shall be 6-digit, non-resettable, reading in hours and tenths of hours.

2. Elapsed time meter shall be Fourth Dimension, or equal.

T. Ground Buss/Lugs

1. Provide a ground lug sized for incoming power ground near the power distribution block. Provide a ground lug sized for pump ground near pump power wire terminations. Provide a ground buss for control equipment grounding, minimum 6 termination points.

U. Corrosion Inhibitor

1. Provide a corrosion inhibitor mounted inside the control panel.

2. Corrosion inhibitor shall be Hoffman #A-HCI-5E, or approved equal.

V. Wiring

1. Power distribution wiring on the line side of panel fuses or circuit breakers shall be sized for the load served, minimum 12 AWG. Control wiring shall be minimum #16 gauge SIS type stranded wire for internal control panel circuits. All control wires shall be numbered at each termination corresponding to the master wiring diagram with clip-sleeve or heat-shrink type wire markers. Wrap-on or adhesive wire markers shall not be allowed. 120 vac wiring (except for neutrals) shall have red insulation. 120 vac neutral wiring shall have white insulation. 50 vac or less shall have yellow insulation. 12/24 vdc wiring shall have blue insulation.

W. Nameplates

1. Provide adhesive backed printed nameplates for all internal devices such as contactors, circuit breakers, and relays. Provide engraved phenolic nameplates, black letters on white background, for door-mounted devices such as selector switches, push-buttons, circuit breaker toggles, and pilot lights. Nameplates shall be secured firmly to the panel.

PART 4 – TELEMETRY EQUIPMENT/SERVICES

4.1 TELEMETRY EQUIPMENT

All equipment specified/provided by the Owner's system integration.

PART 5 - Installation

5.1 GENERAL

A. Equipment shall be installed per manufacturer's instructions and control panel drawings. Complete installation of equipment listed above, including but not limited to computer, communication cables, SCADA/control panels, enclosures, instrumentation, antennas, antenna support masts. Holes should only be punched in bottom of enclosures for conduit entry, etc., where applicable, so as to prevent water from entering enclosure. Where bottom entry is not possible, conduit installation shall be made water-tight by threaded openings and/or gasketed hubs.

B. All equipment to be stored shall be protected against damage at all times. Equipment shall be stored in a clean, dry environment with temperature and humidity within the range as specified by the controller manufacturer.

5.2 DISCRETE SIGNALS

A. Discrete signal transmission between instruments shall be completed withmaller than 14 AWG THHN wire.

5.3 ANALOG SIGNALS

A. Analog signal transmission between instruments shall be 4-20 mA operating at 24 VDC VDC. Ground measurement loops at source OR enclosure, as indicated on drawings. No smaller than 16 AWG twisted/shielded stranded cable shall be used for all analog signal wiring. Larger size may be required for longer runs.

5.4 WIRE TERMINATION

A. Prior to start-up, all wires shall be properly terminated in control panel at terminal blocks, and at equipment external to the control panel, as indicated in the drawings, unless otherwise specified by the Owner.

5.5 CLEAN-UP

A. Upon completion, project site shall be cleaned up and left free of all “junk” electrical equipment (wire, conduit, unistrut, etc.). Enclosure shall be wiped free of any mud or other debris. Work area shall be left in a professional manner, presentable to the owner.

END OF SECTION 16110