



MISSOURI
HIGHWAYS and TRANSPORTATION
COMMISSION
JEFFERSON CITY, MISSOURI
BID FORMS
AND
SPECIFICATIONS
FOR
CONSTRUCTING OR IMPROVING
DISTRICT – 7
GRAVITY SANITARY SEWER MAIN AND SERVICE LINES
NEOSHO, MISSOURI
IFB 9-110308B

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TECHNICAL SPECIFICATION
MISSOURI DNR PERMIT ATTACHED

FINAL CHECKLIST BEFORE SUBMITTING PROPOSAL

- ____1. Complete the Bid Form by filling in the total dollar amount of the bid; listing any addenda which may have been issued; filling in the dollar amount of the bidder's check or Bid Bond, sign the proper signature line, and supply the required information in connection with the signature for the individual bidder, joint adventurer, or corporation.
- ____2. Submit Bid Bond executed by the bidder and surety. Bidders are required to use the Bid Bond furnished by the Commission or attach cashier's check to Bid Bond form. Personal checks are not accepted.
- ____3. Complete Subcontractor section by listing major subcontractor(s) and general supervisor(s), sign as required.
- ____4. Complete Certification Regarding Missouri Domestic Products Procurement Act section, if applicable.
- ____5. Complete Missouri Service-Disabled Veteran Business Preference, if applicable.
- ____6. If addenda(s) are issued attach to the back of the bid package. Copy addenda and add to the appropriate section of the orange bound Request for Proposal and retain for your records.

NEWSPAPER ADVERTISEMENT

Notice to Contractors

MoDOT will receive bids at its General Services Facilities section, 830 MoDOT Drive, Jefferson City, MO until 3:00 P.M., March 8, 2011 for sewer extension at its Neosho maintenance site. Contact Lynn Ferguson at 573-751-4879 or Lynn.Ferguson@modot.mo.gov to obtain plans, forms, and information or download them at no charge from <http://www.modot.org/gsbidding/>. A pre-bid conference is scheduled for March 1, 2011 at the Regional Maintenance Facility, Bus. Rt. 60 & Daugherty, Neosho, Mo at 10:00 AM.

00020

INVITATION TO BID

Notice is given hereby that the Missouri Department of Transportation will accept bids for construction of the project marked "9-110308B, Sewer - Neosho", according to Drawings and Specifications, and described in general as:

CONSTRUCT GRAVITY SANITARY SEWER MAIN AND SERVICE LINES AS SHOWN IN THE TECHNICAL SPECIFICATION AND ON THE DRAWINGS.

Sealed bids will be received by the Missouri Department of Transportation at its Central Office, 830 MoDOT Drive, PO Box 270, Jefferson City, MO 65102-0270 until 3:00 P.M., March 8, 2011.

Bids will be opened and read aloud at that time and that place. Bids received after that time will not be accepted.

Contact Lynn Ferguson at 573-751-4879 or Lynn.Ferguson@modot.mo.gov to obtain plans, forms, and information or download them at no charge from <http://www.modot.mo.gov/gsbidding/>.

The work to be performed under this solicitation is governed by the provisions of Chapter 290 RSMo, as amended, related to prevailing wages to be paid on public works. If the bid is accepted, the vendor will be required to comply with the prevailing wages as fixed by the Missouri Department of Labor and Industrial Relations, in effect as of the date of the issuance of the solicitation, for each effected craft and type of workman in Newton County. The Annual Wage Order #17 is attached to the bid documents. The contractor shall provide all information, reports, and other documentation as required by MHTC to ensure compliance with Chapter 290 RSMo., as amended, relating to prevailing wages to be paid on public works.

Bid securities in the amount of 5% of the bid will be required to accompany bids.

Bids must be made on forms provided by the Commission. The Commission reserves the right to reject any or all bids and to waive irregularity in the bids and the bidding. No bid may be amended or withdrawn after the bid is opened.

Project Location: Regional Maintenance Facility, Bus. Rt. 60 & Daugherty, Neosho, Mo

A pre-bid conference is scheduled for March 1, 2011 at the Regional Maintenance Facility, Bus. Rt. 60 & Daugherty, Neosho, Mo at 10:00 AM.

BIDDER REQUIREMENTS

1. SCOPE OF WORK

CONSTRUCT GRAVITY SANITARY SEWER MAIN AND SERVICE LINES AS SHOWN IN THE TECHNICAL SPECIFICATION AND ON THE DRAWINGS.

2. BID INSTRUCTIONS

In order to receive consideration, bids must be made in strict accordance with the following.

- A. Make bids, upon the forms provided herein, properly signed and with all items filled out. Do not change the wording of the bid form and do not add words to the bid form. Unauthorized conditions, limitations or provisions attached to the bid will be cause for rejection of the bid.
- B. No telegraphic bid or telegraphic modification of a bid will be considered. No bids received after the time fixed for receiving them will be considered. Late bids will be returned to the bidder unopened.
- C. Address bids to the Missouri Department of Transportation, and deliver to the address given in the Invitation for Bid, on or before the day and hour set for opening the bids. Enclose each bid in a sealed envelope bearing the title of the Work, the name of the bidder, and the date and hour of the bid opening. Submit only the original signed copy of the bid. It is the sole responsibility of the bidder to see that the bid is received on time.

3. BONDS

- A. Each proposal shall be accompanied by a Bid Bond, Certified Check, Cashier's Check or Bank Money Order payable to the Director of Revenue – Credit State Road Fund for an amount equal to Five Percent (5%) of the amount of the BID submitted. This is to act as a guarantee that the bidder, if awarded the contract, will furnish an acceptable performance and payment bond (Contract Bond) or a cashier's check, a bank money order or a certified check made payable to "Director of Revenue – Credit State Road Fund" in an amount equal to One Hundred (100%) of the contract price.
- B. If a BID BOND is used (in lieu of a certified check, cashier's check, or bank money order), it must be in the form provided and executed by the bidder as principal and by a surety company authorized to do business in the State of Missouri as surety. The agent executing the same on behalf of the surety company must attach a current Power of Attorney setting forth his authority to execute the bond involved.
- C. Certified Checks, Cashier's Checks or Bank Money Orders of unsuccessful bidders will be returned as soon as the award is made. The checks or bank money orders of the successful bidder(s) will be retained until the contract is executed and a satisfactory Performance and Payment (Contract Bond) is furnished. Bid Bonds will not be returned except on specific request of the bidder.

4. INVOICING AND PAYMENT

- A. MoDOT is exempt from paying Missouri Sales Tax, Missouri Use Tax and Federal Excise Tax. However, the successful bidder to whom the contract is awarded, (hereinafter, "contractor") may themselves be responsible for the payment of taxes on materials they purchase to fulfill the contract. A Project Tax Exemption Certificate will be furnished to the successful bidder upon request if applicable.
- B. Each invoice should be itemized in accordance with items listed on the contract in accordance with Section 01019, Contract Considerations, Applications for Payment provisions. Failure to comply with this requirement may delay processing of invoices for payment.
- C. Unless otherwise provided for in the solicitation documents, payment for all equipment, supplies, and/or services required herein shall be made in arrears. The Commission shall not make any advance deposits.
- D. The Commission assumes no obligation for equipment, supplies, and/or services shipped or provided in excess of the quantity ordered. Any authorized quantity is subject to the Commission's rejection and shall be returned at the Contractor's expense.
- E. The Commission reserves the right to purchase goods and services using the state-purchasing card.

5. EXAMINATION OF DOCUMENTS AND SITE OF WORK

- A. Before submitting a bid, each bidder shall examine the Drawings carefully, read the Specifications and all other proposed Contract Documents, and visit the site of the work. Each bidder shall fully inform themselves, prior to bidding, as to existing conditions and limitations under which the Work is to be performed and shall include in his bid a sum to cover the cost of items necessary to perform the Work, as set forth in the proposed Contract Documents. No allowance will be made to a bidder because of lack of such examination or knowledge. The submission of a bid will be considered conclusive evidence that the bidder has made such examination.
- B. The contract price shall include any necessary permits and licenses required by law incidental to the work. Local ordinances requiring building permits are not applicable to the state. Contractor will comply with local laws involving safety in the prosecution of the work.

6. INTERPRETATION

No oral interpretations will be made to any bidder as to the meaning of the plans and specifications or the acceptability of alternate products, materials, form or type of construction. Every request for interpretation shall be made in writing and submitted with all supporting documents not less than ten (10) days before opening of bids. The request shall be sent directly to the Senior Facilities Designer. Every interpretation made to a bidder will be in the form of an addendum and will be sent as promptly as is practicable to all persons to whom plans and specifications have been issued. All such addenda shall become part of the contract documents.

7. PROOF OF COMPETENCY OF BIDDER

A bidder may be required to furnish evidence, satisfactory to the Commission, that he and his proposed subcontractor(s) have sufficient means and experience in the types of work called for to assure completion of the Contract in a satisfactory manner.

8. WITHDRAWAL OF BIDS

After the bid/proposal opening, a vendor may be permitted to withdraw a bid/proposal prior to award at the sole discretion of the division if there is a verifiable error in the bid/proposal and enforcement of the bid would impose an unconscionable hardship on the vendor. This withdrawal will be considered only after receipt of a written request and supporting documentation from the vendor. Withdrawal shall be the vendor's sole remedy for an error other than an obvious clerical error. Withdrawal of a bid/proposal may result in forfeiture of the bid/proposal bond.

9. AWARD OR REJECTION OF BIDS

- A. The Contract, if awarded, will be made on an **“All or None” basis using the “lowest and best” principle of award**, subject to the Commission's right to reject any or all bids and to waive informality and irregularity in the bids and in the bidding.

10. CONTRACT DOCUMENTS

- A. By submitting a bid, the bidder agrees to furnish any and all equipment, supplies and/or construction services specified in the solicitation documents, at the price(s) stated in their bid, pursuant to all requirements and specifications contained therein.
- B. A binding contract, contract documents ,shall consist of: (1) the solicitation documents with any drawings and/or attachment/exhibits, amendments thereto, and/or Best and Final Offer (BAFO) request(s) with any changes/additions, (2) the Contractor's submitted pricing, and (3) the Commission's acceptance of the bid by purchase order or post-award contract.
- C. A notice of award does not constitute an authorization for shipment of equipment or supplies or a directive to proceed with services. Before providing equipment, supplies and/or services, the Contractor must receive a properly authorized purchase order and/or notice to proceed.
- D. The contract expresses the complete agreement of the parties and performance shall be governed solely by the specifications and requirements contained therein. Any change, whether by modification and/or supplementation, must be accomplished by a formal contract amendment signed and approved by and between the duly authorized representative of the Contractor and the duly authorized representative of the Commission, by a modified purchase order prior to the effective date of such modification. The Contractor expressly and explicitly understands and agrees

that no other method and/or no other document, including correspondence, acts, and oral communications by or from any person, shall be used or construed as an amendment or modification.

- E. Failure to execute the contract and file acceptable performance payment (Contract Bond) or cashier's check, bank money order or certified check within after the contract has been mailed to the bidder shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty. Award may then be made to the next lowest responsible bidder, or the work may be re-advertised and performed under contract or otherwise, as the Commission may decide. No contract shall be considered effective until it has been executed by all parties thereto.

11. NONDISCRIMINATION

- A. The Contractor shall comply with the Regulations relative to nondiscrimination in federally-assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- B. All solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of the Contractor's obligations under this contract and the Regulations, will be relative to nondiscrimination on the grounds of race, color, or national origin.
- C. Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, MoDOT shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to: (i) withholding of payments to the Contractor under the contract until the Contractor complies, and/or, (ii) cancellation, termination or suspension of the contract, in whole or in part.

12. SUBMITTALS

Review of Submittals. The Architect/Engineer/Designer review of submittals is only for the limited purpose of checking for conformance with information given and seeing if they conform to design intent. The General Services Facilities Manager is not responsible for determining the accuracy of measurements and completeness of details, for verifying quantities, or for checking fabrication or installation procedures. The General Services Facilities Manager's review does not relieve the contractor of his or her responsibilities under the contract documents. The submittal process shall be carried out as outlined in Section 01300, Submittals.

13. WORK QUALITY

- A. Inspection of Work. The General Services Facility Operations Supervisor or designated representative shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other data and records relating to the work. If requested by the General Services-Facility Operations Supervisor or designated representative, the contractor shall at any time before final acceptance of the work uncovers any portion of the finished work as directed for inspection. After examination, the contractor shall restore said portions of the work to the standards required by the contract. Should the work thus exposed and examined prove acceptable, the actual cost of uncovering, removing and replacing shall be paid by the Commission. Should the work so exposed and examined prove unacceptable, the uncovering, removing and replacing shall be at the expense of the contractor.
- B. Defective Work. All work which has been rejected shall be remedied, or if necessary, removed and replaced in an acceptable manner by the contractor at its expense. If the contractor fails to remedy or replace such defective work immediately after receiving written notice from the General Services-Facility Operations Supervisor or designated representative, the Commission may employ labor to correct the defective work, and the cost incurred in making such corrections shall be deducted from the payment due or to become due the contractor under this contract.
- C. Contractor will provide a one-year warranty for parts and labor on all building material, and equipment or a standard manufacturer's warranty whichever is greater. All warranties, including extended service agreements shall begin on the date of Final Acceptance of this project.
- D. Contractor's Responsibility for Work. Until the General Services-Facility Operations Supervisor or designated representative, accepts the work, it shall be in the custody and under the charge and care of the contractor. Contractor shall rebuild, repair, restore or make good at its own expense any lost or stolen Commission-owned material and all injuries or damages to any portion of the work caused by action of the elements or from any other reason before its completion and final acceptance. Issuance of a payment estimate on any part of the work done will not be considered as

final acceptance of any work completed up to that time.

- E. Preservation of Utilities and Monuments. The contractor shall be responsible for the preservation of all public and private utilities, wires, lines, pipes, poles, cables, and conduit at the site of the work and shall use every precaution necessary to prevent damage or injury thereto. The contractor shall not disturb or damage any land monument or property landmark until an authorized agent has witnessed or otherwise referenced, their location and shall not remove them until directed by General Services Facilities Manager.
- F. Cooperation with Other Contractors. The contractor shall arrange its work so as not to interfere with the operations of other contractors of the Commission which might be engaged in performing adjacent or nearby work. Whenever work being done by other contractors is contiguous or related to the work involved in this contract, the respective rights of the various contractors will be determined by the General Services-Facility Operations Supervisor or designated representative in order to secure the completion of the work under all contracts in general harmony.
- G. The contractor will be required to remove from the Commission's property all debris.
- H. Temporary Suspension of Work. The General Services-Facility Operations Supervisor or designated representative shall have authority to suspend work, wholly or in part, for such period or periods of time as he may deem necessary when weather or other conditions are such that in the opinion of the General Services-Facility Operations Supervisor or designated representative the work may be done at a later time with advantage to the Commission or for failure on the part of the contractor to comply with any of the provisions of the contract. The contractor may suspend work for reasonable cause with written approval of the General Services-Facility Operations Supervisor or designated representative. Liquidated damages shall not accrue during the period in which work is suspended with the approval of the General Services-Facility Operations Supervisor or designated representative, however, if the suspension is because of the contractor's failure to comply to any of the provisions of the contract, the contractor shall not be entitled to an extension of completion time nor to a waiver of liquidated damages. In the event work is suspended, the contractor shall store all materials in a manner that will protect them from damage, and shall take every precaution to prevent damage or deterioration of, the portions of the work completed. If work has been discontinued for any reason, the contractor shall give the General Services-Facility Operations Supervisor or designated representative written notice at least forty-eight (48) hours before resuming operations.

14. CHANGE ORDERS

- A. General. All departures from the plans and specifications will be considered unauthorized unless, before proceeding with the work, the contractor has had delivered to it a change order, signed by the General Services-Facility Operations Supervisor or designated representative, authorizing and directing such changes or departures. All unauthorized work shall be at the contractor's expense and the General Services-Facility Operations Supervisor or designated representative may order such unauthorized work removed and replaced at the contractor's expense.
- B. Overhead and Profit on Change Orders. The percentages for overhead and profit charged on Change Orders and Field Work Authorizations shall be negotiated and may vary according to the nature, extent and complexity of the work involved. However, the overhead and profit for the contractor or subcontractor actually performing the work shall not exceed 15%. When one or more tiers of subcontractors are used, in no event shall any contractor or subcontractor receive as overhead and profit more than 7% of the cost of the work performed by any of his subcontractors. In no case shall the total overhead and profit paid by the owner on any change order exceed twenty five percent (25%) of the cost of materials, labor and equipment necessary to put the change order work in place.
- C. Contractor's Procedure for Claims. If the contractor considers additional compensation may be due for work or material not clearly covered in the contract or ordered in writing by the General Services-Facility Operations Supervisor or designated representative as extra work, or if additional compensation may be requested beyond the scope of such provisions, the contractor shall notify the General Services-Facility Operations Supervisor or designated representative in writing of the intention to make a claim before beginning the work in question. If notification is not given and the General Services-Facility Operations Supervisor or designated representative is not afforded proper facilities by contractor to provide necessary inspection and for keeping strict account of actual cost, the contractor agrees to waive any claims for additional compensation. Notice by the contractor, and the fact that the General Services-Facility Operations Supervisor or designated representative has kept account of the cost shall not be construed as substantiating the validity of the claim. The contractor shall file a written notice of claim for additional compensation in triplicate within 60 days after completing the work in question.

- a. If the claim is against the Commission, the notice of claim shall be personally delivered, or sent by certified mail to the office of the Secretary of the Commission in Jefferson City, Missouri. All notices of claims shall contain an itemized statement showing completely and fully the items and amounts forming the basis of the claim.
- b. Any claim or an item of any claim, not included in the notice and statement, or any claim included but not clearly defined and specifically set out and itemized or any claim not filed within the time and in the manner provided, shall be forever waived and shall neither constitute the basis of nor be included in any legal action, counterclaim, set-off, or arbitration.
- c. All claims filed with Missouri Highway and Transportation Commission's Secretary will be forwarded to the Missouri Department of Transportation's Claims Committee.

15. INSURANCE

- A. The Contractor shall maintain or cause to be maintained at Contractor's own expense commercial general liability, automobile liability, and worker's compensation insurance against negligent acts, errors or omissions of the Contractor, or its subcontractors and anyone directly or indirectly employed by any of them. Any insurance policy required as specified in this Section shall be written by a company that is licensed and authorized to issue such insurance in the state of Missouri and shall provide insurance coverage for not less than the following limits of liability:
 - a. General Liability: Not less than \$500,000 for any one person in a single accident or occurrence, and not less than \$3,000,000 for all claims arising out of a single occurrence;
 - b. Automobile Liability: Not less than \$500,000 for any one person in a single accident or occurrence, and not less than \$3,000,000 for all claims arising out of a single occurrence;
 - c. Missouri State Workmen's Compensation policy or equivalent in accordance with state law.
 - d. Upon request from the Commission, the Contractor shall provide the Commission with certificates of insurance evidencing the required coverage and that such insurance is in effect.

16. CONSTRUCTION TIME AND LIQUIDATED DAMAGES

- A. Time of Completion - If this bid is accepted, it is hereby agreed that work will begin not later than the date specified in the "Notice to Proceed" and will diligently be prosecuted in order to complete the work and billing within 45-working days from the date specified. Completion of work will be based on FINAL ACCEPTANCE of the building; "SUBSTANTIAL COMPLETION" will not be accepted as basis for completion.
- B. Liquidated Damages - In the event the successful Contractor fails to deliver the material within the time specified, the Department and the public will sustain damages because of such delay in delivery, the exact extent of which would be difficult to ascertain, and in order to liquidate such damage in advance it is agreed that the sum of two-hundred dollars (\$200.00) per day, per item, for each assessable calendar day on which the delivery has not been completed, is reasonable and the best estimate which the parties can arrive at as liquidated damages, and it is therefore agreed that said amount will be withheld from payments due the Contractor or otherwise collected from the Contractor as liquidated damages. Saturdays, Sundays, holidays and days whereas the Department has suspended work shall not be assessable days.
- C. A working day. Is defined as any day when, soil and weather conditions would permit the major operation of the project for six hours or more unless other unavoidable conditions prevent the contractor's operation. If conditions require the contractor to stop work in less than six hours, the day will not be counted as a working day. Working days will begin as soon as notice to proceed is issued. In order for MoDOT not to change a workday due to unavoidable conditions, the contractor must have enough forces, equipment, and materials on site to begin the project. The contractor must notify MoDOT inspector before 12:00 noon of said working day if forces will not be present.

17. EXECUTIVE ORDER

- A. The Contractor shall comply with all the provisions of Executive Order 07-13, issued by the Honorable Matt Blunt, Governor of Missouri, on the sixth (6th) day of March, 2007. This Executive Order, which promulgates the State of Missouri's position to not tolerate persons who contract with the state engaging in or supporting illegal activities of employing individuals who are not eligible to work in the United States, is incorporated herein by reference and made a part of this Agreement.
- B. "By signing this Agreement, the Contractor hereby certifies that any employee of the Contractor assigned to perform services under the contract is eligible and authorized to work in the United States in compliance with federal law."
- C. In the event the Contractor fails to comply with the provisions of the Executive Order 07-13, or in the event the Commission has reasonable cause to believe that the contractor has knowingly employed individuals who are not eligible to work in the United States in violation of federal law, the Commission reserves the right to impose such contract sanctions as it may determine to be appropriate, including but not limited to contract cancellation, termination or suspension in whole or in part or both.
- D. The Contractor shall include the provisions of this paragraph in every subcontract. The Contractor shall take such action with respect to any subcontract as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance.

18. 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 Commission 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 required program completion under 292.675 RSMo.

19. EMPLOYMENT OF UNAUTHORIZED ALIENS

- A. Pursuant to RSMo 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 by the state or by any political subdivision of the state to a business entity, or for any business entity receiving a state-administered or subsidized tax credit, tax abatement, or loan from the state, the business entity 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 unauthorized alien in connection with the contracted services. [RSMO 285.530 (2)] A copy of the affidavit referenced above is provided within this document.
- B. E-Verify is an example of a federal work authorization program. Acceptable enrollment and participation documentation consists of **completed** copy of the E-Verify Memorandum of Understanding (MOU). For vendors that are not already enrolled and participating in a federal work authorization program, E-Verify is available at http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm.

20. PREFERENCES

- A. In the evaluation of bids, preferences shall be applied in accordance with Chapter 34 RSMo. Contractors should apply the same preferences in selecting subcontractors.
- B. By virtue of statutory authority, RSMo. 34.076 and 34.350 to 34.359, a preference will be given to materials, products, supplies, provisions and all other articles produced, manufactured, made or grown within the State of Missouri. Such preference shall be given when quality is equal or better and delivered price is the same or less.
 - 1) If attached, the document entitled "PREFERENCE IN PURCHASING PRODUCTS" should be completed and returned with the solicitation documents.

- 2) If attached, the document entitled "MISSOURI DOMESTIC PRODUCTS PROCUREMENT ACT" should be completed and returned with the solicitation documents. Applies if bid is Twenty-Five Thousand Dollars (\$25,000.00) or more.
- C. By virtue of statutory authority, RSMo 34.074, a preference will be given all contracts for the performance of any job or service to service-disabled veteran business either doing business as Missouri firms, corporations, or individuals; or which maintain Missouri offices or places of business, when the quality of performance promised is equal or better and the price quoted is the same or less or whenever competing bids, in their entirety, are comparable.
 - 1) If attached, the document entitled "MISSOURI SERVICE-DISABLED VETERAN PREFERENCE" should be completed and returned with the solicitation documents.
- D. In the event of a tie of low bids, the MHTC reserves the right to establish the method to be used in determining the award.

21. GENERAL PERFORMANCE

- A. This work is to be performed under the general supervision and direction of the Missouri Department of Transportation (MoDOT) and, if awarded any portion of the work, the Contractor agrees to furnish at his own expense all labor and equipment required to complete the work, it being expressly understood that this solicitation is for completed work based upon the price(s) specified and is not a solicitation for rental of equipment or employment of labor by MoDOT, and MoDOT is to have no direction or control over the employees used by the Contractor in performance of the work.
- B. Bidders are encouraged to obtain minority business enterprise (MBE) and women business enterprise (WBE) participation in this work through the use of subcontractors, suppliers, joint ventures, or other arrangements that afford meaningful participation for M/WBEs. Bidders are encouraged to obtain 10% MBE and 5% WBE participation.

22. APPLICABLE LAWS AND REGULATIONS

- A. The contract shall be construed according to the laws of the State of Missouri. The Contractor shall comply with all local, state, and federal laws and regulations related to the performance of the contract.
- C. The Contractor must be registered and maintain good standing with the Secretary of State of the State of Missouri and other regulatory agencies, as may be required by law or regulations. Prior to the issuance of a purchase order and/or notice to proceed, the Contractor may be required to submit to MoDOT a copy of their current Authority Certificate from the Secretary of State of the State of Missouri.
 - 1) Prior to the issuance of a purchase order and/or notice to proceed, all out-of-state Contractors providing services within the state of Missouri must submit to MoDOT a copy of their current Transient Employer Certificate from the Department of Revenue, in addition to a copy of their current Authority Certificate from the Secretary of State of the State of Missouri.
- D. The exclusive venue for any legal proceeding relating to or arising, out of the contract shall be in the Circuit Court of Cole County, Missouri.

23. PREVAILING WAGE

- A. The work to be performed under this solicitation is governed by the provisions of Chapter 290 RSMo, as amended, related to prevailing wages to be paid on public works.
- B. If the bid is accepted, the vendor will be required to comply with the prevailing wages as fixed by the Missouri Department of Labor and Industrial Relations, in effect as of the date of the issuance of the solicitation, for each affected craft and type of workmen in Newton County. The Annual Wage Order #17 is attached to the bid documents.
- C. Pursuant to the requirements of the Chapter 290 RSMo., not less than the prevailing hourly rate of wages, as set out in the wage order attached to and made part of the specification for work under the contract, must be paid to all workers performing work under the contract.

- D. The Contractor shall provide all information, reports and other documentation as required by MHTC to ensure compliance with Chapter 290 RSMo., as amended, relating to prevailing wages to be paid on public works.

24. REMEDIES AND RIGHTS

- A. No provision in the contract shall be construed, expressly or implied, as a waiver by the MHTC of any existing or future right and/or remedy available by law in the event of any claim by the MHTC of the Contractor's default or breach of contract.
- B. The Contractor agrees and understands that the contract shall constitute an assignment by the Contractor to the MHTC of all rights, title and interest in and to all causes of action that the Contractor may have under the antitrust laws of the United States or State of Missouri for which causes of action have accrued or will accrue as the result of or in relation to the particular equipment, supplies, and/or services purchased or produced by the Contractor in the fulfillment of the contract with the MHTC.
- C. In the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Contractor may request MoDOT to enter into such litigation to protect the interests of the MHTC, and, in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

25. CANCELLATION OF CONTRACT

The MHTC may cancel the contract at any time for a material breach of contractual obligations or for convenience by providing the Contractor with written notice of cancellation. Should the MHTC exercise its right to cancel the contract for such reasons, cancellation will become effective upon the date specified in the notice of cancellation sent to the Contractor.

26. BANKRUPTCY OR INSOLVENCY

Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntary or involuntary, or upon the appointment of a receiver, trustee, or assigned the benefit or creditors, the Contractor must notify MoDOT immediately. Upon learning of any such actions, the MHTC reserves the right, at its sole discretion, to either cancel the contract or affirm the contract and hold the contractor responsible for damages. Inventions, Patents, and Copyrights

27. INVENTIONS, PATENTS, AND COPYRIGHTS

The Contractor shall defend, protect, and hold harmless the MHTC, its officers, agents, and employees against all suits of law or in equity resulting from patent and copyright infringement concerning the Contractor's performance or products produced under the terms of the contract.

28. INSPECTION AND ACCEPTANCE

- A. No equipment, supplies, and/or services received by MoDOT pursuant to a contract shall be deemed accepted until MoDOT has had reasonable opportunity to inspect said equipment, supplies, and/or services.
- B. All equipment, supplies, and/or services which do not comply with the specifications and/or requirements or which are otherwise unacceptable or defective may be rejected. In addition, all equipment, supplies, and/or services which are discovered to be defective or which do not conform to any warranty of the Contractor upon inspection (or at any later time if the defects contained were not reasonably ascertainable upon the initial inspection) may be rejected.
- C. The MHTC reserves the right to return any such rejected shipment at the Contractor's expense for full credit or replacement and to specify a reasonable date by which replacements must be received.
- D. The MHTC's right to reject any unacceptable equipment, supplies, and/or services shall not exclude any other legal, equitable or contractual remedies the MHTC may have.

29. STATUS OF INDEPENDENT CONTRACTOR

The Contractor represents itself to be an independent Contractor offering such services to the general public and shall not represent itself or its employees to be an employee of the MHTC. Therefore, the Contractor shall assume all legal and financial responsibility for taxes, FICA, employee fringe benefits, workers' compensation, employee insurance, minimum wage

requirements, overtime, etc., and agrees to indemnify, save and hold the MHTC, its officers, agents and employees harmless from and against any and all losses (including attorney fees) and damage of any kind related to such matters.

30. INDEMNIFICATION

The Offeror shall defend, indemnify and hold harmless the Commission, including its members and department employees, from any claim or liability whether based on a claim for damages to real or personal property or to a person for any matter relating to or arising out of the Offeror's performance of its obligations under this Agreement.

31. DEFINITIONS

Architect/Engineer/Designer: When the term "Architect or Engineer or Designer" is used herein, it shall refer to Dawndy Baum, [Senior Highway Designer], (417) 621-6328 or Doug Record [General Services Manager - Facilities] Missouri Department of Transportation, General Services (573) 526-7937, FAX (573) 526-6948. MoDOT Inspector or Facility Operations Supervisor: When the term "MoDOT Inspector or Facility Operations Supervisor" is used herein, it shall refer to those MoDOT individuals authorized to perform site inspections by Mendi Allgood [Facility Operations Supervisor] District 4, General Services Division, 417-621-6341, Owner: When the term "Owner" is used herein, it shall refer to Missouri Department of Transportation (MoDOT).

PREFERENCES IN PURCHASING PRODUCTS

DATE: _____

The bidders attention is directed to Section 34.076 RSMo 2000 which gives preference to Missouri corporations, firms, and individuals when letting contracts or purchasing products.

Bids/Quotations received will be evaluated on the basis of this legislation.

All vendors submitting a bid/quotation must furnish ALL information requested below.

FOR CORPORATIONS:

State in which incorporated: _____

FOR OTHERS:

State of domicile: _____

FOR ALL VENDORS:

List address of Missouri offices or places of business:

THIS SECTION MUST BE COMPLETED AND SIGNED:

FIRM NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

BY (signature required): _____

Federal Tax I.D. #: _____ if no Federal Tax I.D. # - list Social Security #: _____

NOTE: For bid/quotation to be considered, the "Preference in Purchasing Products" form must be on file in the General Services (Procurement) Division and must be dated in the current calendar year.

MISSOURI DOMESTIC PRODUCTS PROCUREMENT ACT

The bidder’s attention is directed to the Missouri Domestic Products Procurement Act, Sections 34.350 to 34/359, RsMO, which requires all manufactured goods or commodities used or supplied in the performance of this contract or any subcontract to be manufactured or produced in the United States.

Section 34.355, RsMO, requires the vendor or contractor to certify his compliance with Section 34.353 and, if applicable, Section 34.359, RsMO, at the time of bidding and prior to payment. Failure to comply with Section 34.353, RsMO, during the performance of the contract and to provide certification of compliance prior to payment will result in nonpayment for those goods or commodities.

Section 34.353.2, RsMO, specifies that it does not apply where the total contract is less than Twenty-Five Thousand Dollars (\$25,000.00). If your total bid is Twenty-Five Thousand Dollars (\$25,000.00) or more, you must complete this form as directed below.

Failure to complete and return this document with this bid will cause the State to presume the manufactured goods or products listed in the bid are not manufactured or produced in the United States, and the bid will be evaluated on that basis. Please read the certification appearing below on this form.

[] If all the goods or products specified in the attached bid which the bidder proposes to supply to the State shall be manufactured or produced in the “United States” as defined in Section 34.350, RsMO, check the box at left.

[] If only one item of any particular goods or products specified in the attached bid is manufactured or produced in the “United States” as defined in Section 34.350, RsMO, check the box at left and list the items (or item number) here:

[] If any or all of the goods or products specified in the attached bid which the bidder proposes to supply to the State are not manufactured or produced in the “United States” as defined in Section 34.350, RsMO, then: (a) check the box at left; (b) list below, by item (or item number), the country other than the United States where each good or product is manufactured or produced; and (c) check the boxes to the left of the paragraphs below if applicable and list the corresponding items (or item numbers) in the spaces provided.

Item (or item number)	Location Where Item Manufactured or Produced

(attach an additional sheet if necessary)

[] The following specified goods or products cannot be manufactured or produced in the United States in sufficient quantities or in time to meet the contract specifications. Items (or item numbers): _____

[] The following specified goods or products must be treated as manufactured or produced in the United States, in accordance with an existing treaty, law, agreement, or regulation of the United States, including a treaty between the United States and any foreign country regarding export-import restrictions or international trade. Items (or item numbers): _____

CERTIFICATION

By submitting this document, completed as directed above, with a bid, the bidder certifies under penalty of making false declaration (Section 575.060, RsMO) that the information contained in this document is true, correct and complete, and may be relied upon by the State in determining the bidders qualifications under and in compliance with the Missouri Domestic Products Procurement Act.

The bidder’s failure to complete and return this document with the bid as directed above will cause the State to presume the manufactured goods or products listed in the bid are not manufactured or produced in the United States, and the bid will be evaluated on that basis pursuant to Section 34.353.3(2), RsMO.

MISSOURI SERVICE-DISABLED VETERAN BUSINESS PREFERENCE

By virtue of statutory authority, RSMo 34.074, a preference will be given all contracts for the performance of any job or service to service-disabled veteran business either doing business as Missouri firms, corporations, or individuals; or which maintain Missouri offices or places of business, when the quality of performance promised is equal or better and the price quoted is the same or less or whenever competing bids, in their entirety, are comparable.

Definitions:

Service-Disabled Veteran is defined as any individual who is disabled as certified by the appropriate federal agency responsible for the administration of veterans' affairs.

Service-Disabled Veteran Business is defined as a business concern:

- a. Not less than fifty-one (51) percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than fifty-one (51) percent of the stock of which is owned by one or more service-disabled veterans; and
- b. The management and daily business operations of which are controlled by one or more service-disabled veterans.

If an bidder meets the definitions of a service-disabled veteran and a service-disabled veteran business as defined in 34.074 RSMo and is either doing business as a Missouri firm, corporation, or individual; or maintains a Missouri office or place of business, the bidder must provide the following with the proposal in order to receive the Missouri service-disabled veteran business preference over a non-Missouri service-disabled veteran business when the quality of performance promised is equal or better and the price quoted is the same or less or whenever competing proposals, in their entirety, are comparable:

- a. A copy of a letter from the Department of Veterans Affairs (VA), or a copy of the bidder's discharge paper (DD Form 214, Certificate of Release or Discharge from Active Duty) from the branch of service the bidder was in, stating that the bidder has a service-connected disability rating ranging from 0 to 100% disability; and
- b. A completed copy of this exhibit

(NOTE: For ease of evaluation, please attach copy of the above-referenced letter from the VA or a copy of the bidder's discharge paper to this Exhibit.)

By signing below, I certify that I meet the definitions of a service-disabled veteran and a service-disabled veteran business as defined in 34.074 RSMo and that I am either doing business as a Missouri firm, corporation, or individual; or maintain Missouri offices or places of business at the location(s) listed below.

Veteran Information

Business Information

Service-Disabled Veteran's Name, (Please Print)

Service-Disabled Veteran Business Name

Service-Disabled Veteran's Signature

Missouri Address of Service-Disabled Veteran Business

00301

BID FORM

To: The Missouri Highway and Transportation Commission
PO Box 270
Jefferson City, Missouri 65102

1. The undersigned, having examined the proposed Contract Documents titled: **“9-110308B D7 Sewer - Neosho”** and having visited the site and examined the conditions affecting the work, hereby proposes and agrees to furnish all labor, materials, equipment and everything which may be necessary or incidental thereto, as proposed by said Contract Documents, all to the satisfaction of the General Services-Facility Operations Supervisor or designated representative of the Missouri Department of Transportation and the Missouri Highway and Transportation Commission, for the stipulated sum of:

_____ DOLLARS (\$_____)

2. The undersigned, acknowledges having examined and being familiar with the contract documents including the drawings, the Instructions to Bidders, General Conditions, Supplementary Conditions and the body of technical specifications.
3. The undersigned acknowledges receipt of Addenda number _____ through _____ inclusive.
4. Enclosed with this bid is bid security in the amount of not less than 5% of the bidder's proposed Contract Sum, the amount being _____ DOLLARS (\$_____).

Is your firm MBE certified? Yes No

Is your firm WBE certified? Yes No

IF AN INDIVIDUAL

Name of individual

Residence address

Social Security Number

Telephone Number

Firm Name, If Any

Address for communications

Signature

IF A PARTNERSHIP

Name of Partnership

(State Name and Residence Address of All Partners)

Partner

Residence Address

Partner

Residence Address

Address for Communications

Signature of Either Partner

Telephone Number

Federal Tax I.D. Number

IF A CORPORATION

Name of Corporation

Incorporated under the laws of the
State of _____

Name and Title of Officer

Corporate License No. _____
(If a corporation organized in a state other than
Missouri, attach Certificate of Authority to do
business in the State of Missouri.)

Signature of officer

Federal Tax I.D. Number

Address for Communications

(ATTEST)

Telephone Number

(SEAL) Secretary

(Each bidder must complete the Bid Form by signing in the proper signature line above and by supplying the required information called for in connection with the signature. The information called for is necessary in the proper preparation of the contract and performance bond.)

00430

SUBCONTRACTOR LISTING

1. For portions of Work equaling or exceeding 1% of the total proposed Contract Sum, the undersigned proposes to use the following subcontractors. Except as otherwise approved by the Owner, the undersigned proposes to perform all other portions of the Work with his own forces.

2. Portion of the Work:	Subcontractor name and address:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

USE ADDITIONAL SHEETS
IF REQUIRED

BIDDER:

PROVIDE SIGNATURE
IDENTICAL TO THAT
SHOWN ON THE BID FORM

by _____

00600

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____,
as Principal, and _____,
as Surety, are held firmly bound unto the State of Missouri (acting by and through the Missouri Highway and
Transportation Commission) in the penal sum of _____ Dollars

(\$ _____), to be paid to the State of Missouri, or the Missouri Highway and Transportation
Commission, to be credited to the State Road Fund and Principal and Surety binding themselves, their heirs,
executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this _____ day of _____, 20 _____

THE CONDITION OF THIS OBLIGATION is such that:

WHEREAS, the Principal is submitting herewith a bid to the Missouri Highway and Transportation Commission on
Route(s) _____,
in _____ County(ies), Project(s) _____,
for construction or improvement as set out in said proposal.

NOW THEREFORE, if the Missouri Highway and Transportation Commission shall accept the bid of the Principal,
and if said Principal shall properly execute and deliver to the Missouri Highway and Transportation Commission the
Contract, Contract Bond, Specifications and evidence of insurance coverage in compliance with the requirements of
the Proposal, to the satisfaction of the Missouri Highway and Transportation Commission, then this obligation shall
be void and of no effect, otherwise to remain in full force and effect.

In the event the said Principal shall, in the judgment of the Missouri Highway and Transportation Commission, fail to
comply with any requirement as set forth in the preceding paragraph, then the Stat of Missouri, acting through the
Missouri Highway and Transportation Commission, shall immediately and forthwith be entitled to recover the fees,
and any other expense of recovery.

Principal

Surety

By _____

Attorney in Fact (SEAL)

Attest: (CORPORATE SEAL)

Corporate Secretary

Note: This bond must be executed by the Principal and by a Corporate Surety authorized to conduct
surety business in the State of Missouri.

END OF SECTION

CONTRACT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Schedule of values.
- B. Application for payment.
- C. Change procedures.
- D. Alternatives.

1.2 RELATED SECTIONS

- A. Section 01600 - Material and Equipment: Product substitutions.

1.3 SCHEDULE OF VALUES

- A. Submit a printed schedule on Contractor's standard form. Electronic media printout will be considered.
- B. Submit Schedule of Values in duplicate within 20 days after date of Owner-Contractor Agreement.
- C. Revise schedule to list approved Change Orders, with each Application For Payment.

1.4 APPLICATIONS FOR PAYMENT

- A. Submit four copies of each application on Contractor's electronic media driven form.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Payment Period: 30 days.
- D. Submit waiver of liens from vendors.
- E. Include an updated construction progress schedule.
- F. Certified payroll records.

1.5 CHANGE PROCEDURES

- A. The Architect/Engineer/Designer may issue a Notice of Change that includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required.
- B. The Contractor may propose changes by submitting a request for change to the Architect/Engineer/Designer describing the proposed change and its full effect on the Work. Include a statement describing the reason for the change, the effect on the Contract Sum/Price and Contract Time, and a statement describing the effect on Work by the MoDOT District or other Contractors.
- C. Stipulated Sum/Price Change Order: Based on Notice of Change and Contractor's fixed price quotation or Contractor's request for a Change Order as approved by Architect/Engineer/Designer.
- D. Construction Change Directive: Architect/Engineer/Designer may issue a directive instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute the change.

- E. Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. Architect/Engineer/Designer will determine the change allowable in Contract Sum/Price and Contract Time as provided in the Contract Documents.
- F. Maintain detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
- G. Execution of Change Orders: Architect/Engineer/Designer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

1.6 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specify requirements.
- B. If, in the opinion of the Architect/Engineer/Designer, it is not practical to remove and replace the Work, the Architect/Engineer/Designer will direct an appropriate remedy or adjust payment.

1.7 ALTERNATIVES

- A. Accepted Alternatives will be identified in Owner-Contractor Agreement.

END OF SECTION

COORDINATION AND MEETING REQUIREMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coordination and project conditions.
- B. Field engineering.
- C. Preconstruction meeting.
- D. Site mobilization meeting.
- E. Progress meetings.
- F. Preinstallation meetings.
- G. Equipment electrical characteristics and components.
- H. Examination.
- I. Preparation.
- J. Cutting and Patching.
- K. Alteration project procedures.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to and placing in service, such equipment.
- C. Coordinate space requirements, supports, and installation of mechanical and electrical Work, which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas, except as otherwise indicated, conceal pipes, ducts and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and clean up of Work of separate sections in preparation for Substantial Completion.
- F. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.3 FIELD ENGINEERING

- A. Employ a Land Surveyor registered in the State of Missouri and acceptable to Architect/Engineer/Designer.
- B. Owner will locate and protect survey control and reference points.
- C. Control datum for survey is that established by Owner provided survey.
- D. Verify setbacks and easements; confirm drawing dimensions and elevations.
- E. Provide field engineering services. Establish elevations, lines and levels, utilizing recognized engineering survey practices.

1.4 PRECONSTRUCTION MEETING

- A. Architect/Engineer/Designer will schedule a meeting after Notice of Award.

- B. Attendance Required: District engineer or representative, Architect/Engineer/Designer and Contractor.
- C. Record minutes and distribute copies within 5 days after meeting to participants, with two copies to District Engineer, Architect/Engineer/Designer, participants and those affected by decisions made.

1.5 SITE MOBILIZATION MEETING

- A. Architect/Engineer/Designer will schedule a meeting at the Project site prior to Contractor occupancy.
- B. Architect/Engineer/Designer will record minutes and distributes copies within 5 days after meeting to participants, with two copies to Architect/Engineer/Designer, participants and those affected by decisions made.

1.6 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at when arranged by Architect/Engineer/Designer.
- B. Architect/Engineer/Designer will make arrangements for meetings, prepare agenda with copies for participants, and preside at meetings.
- C. Attendance Required: Job superintendent, major Subcontractors and suppliers, District engineer representative, Architect/Engineer/Designer, as appropriate to agenda topics for each meeting.
- D. Agenda:
 - 1. Review of Work progress.
 - 2. Field observations, problems, and decisions.
 - 3. Identification of problems, which impede planned progress.
 - 4. Maintenance of progress schedule.
 - 5. Corrective measures to regain projected schedules.
 - 6. Coordination of projected progress.
 - 7. Effect of proposed changes on progress schedule and coordination.
- E. Record minutes and distributes copies within 5 days after meeting to participants and those affected by decisions made.

1.7 PREINSTALLATION MEETING

- A. When required in individual specification sections, convene a pre-installation meeting at the site prior to commencing work of the section.
- B. Notify Architect/Engineer/Designer seven days in advance of meeting date.
- C. Prepare agenda and preside at meeting:
 - 1. Review conditions of installation, preparation and installation procedures.
 - 2. Review coordination with related work.
- D. Record minutes and distributes copies within 5 days after meeting to participants and those affected by decisions made.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

3.1 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements, which affect:
 - 1. Structural integrity of element.
 - 2. Integrity of weather-exposed or moisture-resistant elements.
 - 3. Work of Owner or separate contractor.
- C. Execute cutting, fitting, and patching to complete Work, and to:
 - 1. Uncover Work to install or correct ill-timed Work.
 - 2. Remove and replace defective and non-conforming Work.
 - 3. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Cut masonry and concrete materials using masonry saw or core drill.
- E. Fit Work tight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- F. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- G. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.
- H. Identify hazardous substances or conditions exposed during the Work to the Architect/Engineer/Designer for decision or remedy.

3.2 ALTERATION PROJECT PROCEDURES

- A. Materials: As specified in Product sections; match existing Products and work for patching and extending work.
- B. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- C. When finished surfaces are cut so that a smooth transition with new Work is not possible, terminate existing surface along a straight line at a natural line of division and submit recommendation to Architect/Engineer/Designer for review.
- D. Patch or replace portions of existing surfaces that are damaged, lifted, discolored or showing other imperfections.
- E. Finish surfaces as specified in individual Product sections.

END OF SECTION

01300

SUBMITTAL REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Proposed Products list.
- D. Product Data.
- E. Shop Drawings.
- F. Samples.
- G. Design data.
- H. Test reports.
- I. Certificates.
- J. Manufacturer's instructions.
- K. Manufacturer's field reports.
- L. Erection drawings.
- M. Construction photographs.

1.2 RELATED SECTIONS

- A. Section 01300 - Submittals
- B. Section 01400 - Quality Control: Manufacturers' field services and reports.
- C. Section 01700 - Contract Closeout: Contract warranties, bonds, manufacturers' certificates and closeout submittals.

1.3 REFERENCES

- A. AGC Associated General Contractors of America publication "The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry".

1.4 SUBMITTAL PROCEDURES

- A. Transmit each submittal with Architect/Engineer/Designer accepted form.
- B. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number and specification section number, as appropriate.
- C. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- D. Schedule submittals to expedite the Project, and deliver to Architect/Engineer/Designer at business address. Coordinate submission of related items.
- E. For each submittal for review, allow 15 days excluding delivery time to and from the contractor.
- F. Identify variations from Contract Documents and Product or system limitations, which may be detrimental to successful performance of the completed Work.
- G. Submittals not requested will not be recognized or processed.

1.5 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedule in duplicate within 15 days after date established in Notice to Proceed.
- B. Revise and resubmit as required.
- C. Submit revised schedules with each Application for Payment, identifying changes since previous version.
- D. Submit a horizontal bar chart with separate line for each major portion of Work or operation, identifying first workday of each week.

1.6 PROPOSED PRODUCTS LIST

- A. Within 15 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation and reference standards.

1.7 PRODUCT DATA

- A. Product Data For Review:
 - 1. Submitted to Architect/Engineer/Designer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
 - 2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.
- B. Product Data For Information:
 - 1. Submitted for the Architect/Engineer/Designer's knowledge as contract administrator or for the Owner.
- C. Product Data For Project Closeout:
 - 1. Submitted for the Owner's benefit during and after project completion.
- D. Submit the number of copies, which the Contractor requires, plus two copies that will be retained by the Architect/Engineer/Designer.
- E. Mark each copy to identify applicable products, models, options and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- F. After review distribute in accordance with the Submittal Procedures article above and provide copies for record documents described in Section 01700 - CONTRACT CLOSEOUT.

1.8 SHOP DRAWINGS

- A. Shop Drawings For Review:
 - 1. Submitted to Architect/Engineer/Designer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
 - 2. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.
- B. Shop Drawings For Information:
 - 1. Submitted for the Architect/Engineer/Designer's knowledge as contract administrator or for the Owner.

- C. Shop Drawings For Project Closeout:
 - 1. Submitted for the Owner's benefit during and after project completion.
- D. Indicate special utility and electrical characteristics, utility connection requirements and location of utility outlets for service for functional equipment and appliances.
- E. Submit in the form of one reproducible transparency and one opaque reproduction.

1.9 SAMPLES

- A. Samples For Review:
 - 1. Submitted to Architect/Engineer/Designer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
 - 2. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.
- B. Samples For Information:
 - 1. Submitted for the Architect/Engineer/Designer's knowledge as contract administrator or for the Owner.
- C. Samples For Selection:
 - 1. Submitted to Architect/Engineer/Designer for aesthetic, color, or finish selection.
 - 2. Submit samples of finishes for Architect/Engineer/Designer selection.
 - 3. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.

1.10 DESIGN DATA

- A. Submit for the Architect/Engineer/Designer's knowledge as contract administrator or for the Owner.
- B. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.11 TEST REPORTS

- A. Submit for the Architect/Engineer/Designer's knowledge as contract administrator or for the Owner.
- B. Submit test reports for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.12 CERTIFICATES

- A. When specified in individual specification sections, submit certification by the manufacturer, installation/application subcontractor, or the Contractor to Architect/Engineer/Designer, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product but must be acceptable to Architect/Engineer/Designer.

1.13 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery,

storage, assembly, installation, and start-up, adjusting and finishing, to Architect/Engineer/Designer for delivery to owner in quantities specified for Product Data.

- B. Indicate special procedures, perimeter conditions requiring special attention and special environmental criteria required for application or installation.
- C. Refer to Section 01400 - Quality Control, Manufacturers' Field Services article.

1.14 MANUFACTURER'S FIELD REPORTS

- A. Submit reports for the Architect/Engineer/Designer's benefit as contract administrator or for the Owner.
- B. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.15 ERECTION DRAWINGS

- A. Submit drawings for the Architect/Engineer/Designer's benefit as contract administrator or for the Owner.
- B. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
- C. Data indicating inappropriate or unacceptable Work may be subject to action by the Architect/Engineer/Designer or Owner.

END OF SECTION

01400

QUALITY CONTROL REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality assurance - control of installation.
- B. Tolerances
- C. References and standards.
- D. Mock-up.
- E. Inspecting and testing laboratory services.
- F. Manufacturers' field services.

1.2 RELATED SECTIONS

- A. Section 01300 - Submittals: Submission of manufacturers' instructions and certificates.
- B. Section 01600 - Material and Equipment: Requirements for material and product quality.
- C. Section 01650 - Starting of Systems.

1.3 QUALITY ASSURANCE - CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Engineer/Designer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.4 TOLERANCES

- A. Monitor fabrication and installation tolerance control of Products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect/Engineer/Designer before proceeding.
- C. Adjust Products to appropriate dimensions; position before securing Products in place.

1.5 REFERENCES AND STANDARDS

- A. For Products or workmanship specified by association, trade or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

- B. Conform to reference standard by date of issue current on date for receiving bids or date specified in the individual specification sections, except where a specific date is established by code.
- C. Neither the contractual relationships, duties or responsibilities of the parties in Contract nor those of the Architect/Engineer/Designer shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.6 TESTING SERVICES

- A. Contractor to provide all testing services as called out in these specifications.
- B. Testing and source quality control may occur on or off the project site. Perform off-site testing as required by the Architect/Engineer/Designer or the Owner.
- C. Testing does not relieve Contractor to perform Work to contract requirements.
- D. Re-testing required because of non-conformance to specified requirements shall be performed by the same MoDOT personnel on instructions by the Architect/Engineer/Designer.

1.7 INSPECTION SERVICES

- A. Owner will employ MoDOT Personnel to perform inspection.
- B. Inspecting may occur on or off the project site. Perform off-site inspecting as required by the Architect/Engineer/Designer or the Owner.
- C. Inspecting does not relieve Contractor to perform Work to contract requirements.

1.8 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and the balancing of equipment as applicable and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- C. Refer to Section 01300 - SUBMITTALS, MANUFACTURERS' FIELD REPORTS article.

PART 2 EXECUTION

2.1 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.

2.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer or conditioner prior to applying any new material or substance in contact or bond.

END OF SECTION

01500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROL REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities: Electricity, telephone service, facsimile service and sanitary facilities.
- B. Temporary Controls: enclosures and fencing, protection of the Work and water control.
- C. Construction Facilities: progress cleaning and temporary buildings.

1.2 TEMPORARY ELECTRICITY

- A. Cost: By Contractor; pay for temporary power service furnished by MoDOT.

1.3 TELEPHONE SERVICE

- A. Provide, maintain, and pay for telephone service to field office and Architect/Engineer/Designer's field office at time of project mobilization.

1.4 FACSIMILE SERVICE

- A. Provide, maintain and pay for facsimile service and a dedicated telephone line to field office and Architect/Engineer/Designer's field office at time of project mobilization.

1.5 TEMPORARY WATER SERVICE

- A. Connect to existing water source as directed for construction operations at time of project mobilization.
- B. Contractor will reimburse Owner for water used in construction as agreed upon at time of project mobilization.

1.6 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.

1.7 FENCING

- A. Construction: Use plastic mesh safety fencing or better.
- B. Provide 48" high fence around construction site; equip with vehicular and pedestrian gates with locks.

1.8 WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate and maintain pumping equipment.
- B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

1.9 EXTERIOR ENCLOSURES

- A. Provide temporary weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.10 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

1.11 SECURITY

- A. Provide security and facilities to protect Work and existing facilities and Owner's operations from unauthorized entry, vandalism or theft.
- B. Coordinate with Owner's security program.

1.12 ACCESS ROADS

- A. Provide and maintain access to fire hydrants, free of obstructions.
- B. Provide means of removing mud from vehicle wheels before entering streets.
- C. Designated existing on-site roads may be used for construction traffic.

1.13 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris and rubbish from site periodically and dispose off-site.
- E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.14 FIELD OFFICES AND SHEDS

- A. Office: Weather tight, with lighting, electrical outlets, heating and ventilating equipment and equipped with drawing rack and drawing display table.
- B. Provide space for Project meetings, with table and chairs to accommodate 6 persons.

1.15 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities and materials prior to Final Application for Payment inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

01600

MATERIAL AND EQUIPMENT REQUIREMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Transportation and handling.
- C. Storage and protection.
- D. Product options.
- E. Substitutions.

1.2 RELATED SECTIONS

- A. Instructions to Bidders: Product options and substitution procedures.
- B. Section 01400 - Quality Control: Product quality monitoring.

1.3 PRODUCTS

- A. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- B. Provide interchangeable components of the same manufacture for components being replaced.

1.4 TRANSPORTATION AND HANDLING

- A. Transport and handle Products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure that Products comply with requirements, quantities are correct and products are undamaged.
- C. Provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement or damage.

1.5 STORAGE AND PROTECTION

- A. Store and protect Products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive Products in weather tight, climate controlled, enclosures in an environment favorable to Product.
- D. For exterior storage of fabricated Products, place on sloped supports above ground.
- E. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- F. Cover Products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of Products.
- G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store Products by methods to prevent soiling, disfigurement or damage.

- I. Arrange storage of Products to permit access for inspection. Periodically inspect to verify Products are undamaged and are maintained in acceptable condition.

1.6 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description is acceptable.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following article.

1.7 SUBSTITUTIONS

- A. Architect/Engineer/Designer will consider requests for Substitutions only within 15 days after date established in Notice to Proceed.
- B. Substitutions may be considered when a Product becomes unavailable through no fault of the Contractor.
- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that the Contractor:
 - 1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
 - 2. Will provide the same warranty for the Substitution as for the specified Product.
 - 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 - 5. Will reimburse Owner for review or redesign services associated with re-approval by authorities.
- E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request or when acceptance will require revision to the Contract Documents.
- F. Substitution Submittal Procedure:
 - 1. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
 - 2. Submit shop drawings, product data and certified test results attesting to the proposed Product equivalence. Burden of proof is on proposer.
 - 3. The Architect/Engineer/Designer will notify Contractor in writing of decision to accept or reject request.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

01650

STARTING OF SYSTEMS REQUIREMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Starting systems.
- B. Demonstration and instructions.
- C. Testing, adjusting and balancing.

1.2 RELATED SECTIONS

- A. Section 01400 - Quality Control: Manufacturers field reports.
- B. Section 01700 - Contract Closeout: System operation and maintenance data and extra materials.

1.3 STARTING SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Architect/Engineer/Designer seven days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, and control sequence and for conditions that may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify that wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable manufacturer's representative or Contractors' personnel in accordance with manufacturers' instructions.
- G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check and approve equipment or system installation prior to start-up and to supervise placing equipment or system in operation.
- H. Submit a written report in accordance with Section 01300 that equipment or system has been properly installed and is functioning correctly.

1.4 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of Final Completion.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owners' personnel in detail to explain all aspects of operation and maintenance.
- D. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance and shutdown of each item of equipment at agreed time, at equipment location.

- E. Prepare and insert additional data in operations and maintenance manuals when the need for additional data becomes apparent during instruction.
- F. The amount of time required for instruction on each item of equipment and system that's specified in individual sections.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

CONTRACT CLOSEOUT REQUIREMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Final cleaning.
- C. Adjusting.
- D. Project record documents.
- E. Operation and maintenance data.
- F. Spare parts and maintenance Products.
- G. Warranties.

1.2 RELATED SECTIONS

- A. Section 01500 - Construction Facilities and Temporary Controls: Progress cleaning.
- B. Section 01650 - Starting of Systems: System start-up, testing, adjusting and balancing.

1.3 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Architect/Engineer/Designer's review.
- B. Provide submittals to Owner that is required by governing or other authorities.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments and sum remaining due.
- D. Owner will occupy portions of the building as specified in Section 01010.

1.4 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- B. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- C. Clean or replace filters of operating equipment used during construction and/or adjustment.
- D. Clean debris from roofs, gutters, downspouts and drainage systems.
- E. Clean site; sweep paved areas, rake clean landscaped surfaces.
- F. Remove waste and surplus materials, rubbish and construction facilities from the site.

1.5 ADJUSTING

- A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

1.6 PROJECT RECORD DOCUMENTS

- A. Store record documents separate from documents used for construction.

- B. Record information concurrent with construction progress.
- C. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- D. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish main floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original Contract drawings.
- E. Submit documents to Architect/Engineer/Designer's with claim for final Application for Payment.

1.7 OPERATION AND MAINTENANCE DATA

- A. Submit data bound in 8-1/2 x 11 inch (A4) text pages, three D side ring binders with durable plastic covers.
- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project and subject matter of binder when multiple binders are required.
- C. Internally subdivide the binder contents with permanent page dividers, logically organized; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Submit 1 draft copy of completed volumes 15 days prior to final inspection. This copy will be reviewed and returned with Architect/Engineer/Designer comments. Revise content of all document sets as required prior to final submission.
- E. Submit two sets of revised final volumes, within 10 days after final inspection.

1.8 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Provide spare parts, maintenance, and extra Products in quantities specified individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.
- C. Examine system components at a frequency consistent with reliable operation. Clean, adjust and lubricate as required.
- D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- E. Maintenance service shall not be assigned or transferred to any agent or Subcontractor without prior written consent of the Owner.

1.9 WARRANTIES

- A. Execute and assemble transferable warranty documents from Subcontractors, suppliers and manufacturers.
- B. Submit prior to final Application for Payment.
- C. For items of Work delayed beyond date of Final Completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of the warranty period.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

SECTION 02623

GRAVITY SANITARY SEWER MAIN AND SERVICE LINES

PART 1	GENERAL
1.1	WORK INCLUDED
1.2	REFERENCES
1.3	SUBMITTALS
1.4	DELIVERY, STORAGE, AND HANDLING
PART 2	PRODUCTS
2.1	GRAVITY SEWER MAIN
2.2	CONNECTIONS TO MANHOLES
PART 3	EXECUTION
3.1	HANDLING AND STORAGE
3.2	CUTTING PIPE
3.3	CLEANING
3.4	INSPECTION
3.5	ALIGNMENT
3.6	LAYING PIPE
3.7	VIDEO INSPECTION
3.8	DEFLECTION TESTING OF PIPE
3.9	WATER MAIN CONFLICT
3.10	LOW PRESSURE AIR TESTING



TECHNICAL SPECIFICATIONS

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Gravity sewer main pipe.
- B. Fittings and jointing materials.
- C. Sanitary sewer service pipe.

1.2 REFERENCES

- A. ASTM B88 Standard Specification for Seamless Copper Water Tube.
- B. ASTM D1784 – Specification for Rigid Poly (Vinyl Chloride) PVC Compounds.
- C. ASTM D2412 – Standard Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel – Plate Loading.
- D. ASTM D3034 – Standard Specification for Type PSM PVC Sewer Pipe Fittings.
- E. ASTM D3212 – Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
- F. ASTM F477 – Standard Specification for Elastomeric Seals for Joining Plastic Pipe.
- G. ASTM F679 – Standard Specification for PVC Large Diameter Plastic Gravity Sewer Pipe and Fittings.

1.3 SUBMITTALS

- A. Submit product data under provisions of Section 01300.
- B. Include data on pipe materials, pipe fittings, gasket material, and accessories.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site under provisions of Section 01600.
- B. Store and protect products under provisions of Section 01600.

PART 2 PRODUCTS

2.1 GRAVITY SEWER MAIN

- A. Polyvinyl Chloride Pipe (PVC)

TECHNICAL SPECIFICATIONS

1. Pipe
 - a. ASTM D3034 – SDR 26 or as otherwise shown on plans.
 - b. Pipe shall be made of PVC plastic having a minimum cell classification of 12454B or 12454C as defined in ASTM D1784.
 - c. The pipe shall be uniform in color, opacity, density and other physical properties. Pipe and fittings shall be marked in accordance with the relevant ASTM standard, i.e., D3034 or F679, including a date or date code.
2. Joints. ASTM D3212, stab type with elastomeric gaskets. Gaskets shall be in compliance with ASTM F477 and shall be suitable for sewage service. Solvent weld joints and couplings will not be permitted. Natural rubber gaskets will not be acceptable.
3. Fittings. PVC plastic fittings, cell classification 12454B or 12454C as defined in ASTM D1784.
4. Plain End Couplings and Adaptors for Connection to Other Pipe Materials. Can-Tex “C-5 Adaptors;” Fernco “PVC Donuts;” or “Flexible Couplings;” Nashua Pre-Cast Corporation “Flex-O-Joint;” or equal.

2.2 CONNECTIONS TO MANHOLES

Precast manhole bottoms with cast-in-place Resilient manhole/pipe connectors	→	A-Lok “Inserta-Lok” or Dura-Tech “Dura-Steel”
Precast manholes with boxouts for Grouted/concrete, manhole/pipe connections	→	Rubber ring water stop with stainless steel compression band

PART 3 EXECUTION

3.1 HANDLING AND STORAGE

- A. Pipe, fittings, and accessories shall be handled in a manner that will insure installation in sound, undamaged condition. Equipment, tools, and methods used in handling and installing pipe and fittings shall not damage the pipe and fittings.
- B. Hooks inserted in ends of pipe shall have broad, well padded contact surfaces.
- C. Pipe stored on the job site shall be covered with canvas or other opaque material to protect it from the sun’s rays. Air circulation shall be provided under the covering.
- D. Ultraviolet radiation degradation evidenced by a light yellow (or brown) discoloration of the pipe shall be cause for rejection and removal of the pipe. Pipe which is not installed within

TECHNICAL SPECIFICATIONS

120 days of the latest factory compliance test shall not be used without the written approval of the Engineer. Pipe older than two years from date of manufacture shall not be used.

3.2 CUTTING PIPE

- A. Cutting shall be done in a neat manner, without damage to the pipe.
- B. Cuts shall be smooth, straight, and at right angles to the pipe axis. After cutting, the end of the pipe shall be dressed with a file to remove all roughness and sharp corners.

3.3 CLEANING

- A. The interior of all pipe and fittings shall be thoroughly cleaned of foreign matter before being installed and shall be kept clean until the work has been accepted.
- B. Before jointing, all joint contact surfaces shall be wire brushed if necessary, wiped clean, and kept clean until jointing is completed.
- C. Precautions shall be taken to prevent foreign material from entering the pipe during installation. Debris, tools, clothing, or other materials shall not be placed in or allowed to enter the pipe.
- D. Whenever pipe laying is stopped, the open end of the pipe shall be sealed with a watertight plug which will prevent trench water from entering the pipe.

3.4 INSPECTION

- A. Pipe and fittings shall be carefully examined for cracks and other defects immediately before installation; spigot ends shall be examined with particular care.
- B. All defective pipe and fittings shall be removed from site of the work.

3.5 ALIGNMENT.

- A. Pipelines or runs intended to be straight shall be laid straight and at uniform grade between changes in grade.
- B. Straight section of piping between manholes shall be lamped by the Engineer with assistance from the contractor.

3.6 LAYING PIPE

- A. Pipe shall be protected from lateral displacement by placing the specified pipe embedment material.

TECHNICAL SPECIFICATIONS

- B. Under no circumstances shall pipe be laid in water and no pipe shall be laid under unsuitable weather or trench conditions.
- C. Pipe shall be laid with the bell ends facing the direction of laying except when reverse laying is specifically authorized by the Engineer.
- D. The contractor shall erect substantial batter boards at intervals of not more than 50 feet. Batter boards shall be used to determine and check pipe subgrades. Not less than three (3) batter boards shall be maintained in proper position at all times when trench grading is in progress.
- E. Other methods of maintaining alignment and grade, such as use of laser beam equipment or surveying instruments, will be considered, provided complete information describing the proposed method is submitted to the Engineer for review before pipe laying is started.
- F. All instructions and recommendations of the joint manufacturer shall be followed. Immediately before joints are pushed together, all joint surfaces shall be lubricated with the lubricant furnished by the joint manufacture.
- G. When material is encountered which will not, in the Engineer's opinion, provide a suitable bed for construction of the sewer, granular foundation and bedding shall be installed at the Engineers direction.
- H. Granular foundation, which is necessary due to improper trench preparation and maintenance or neglect in handling ground water, shall be installed at the Contractor's expense.
- I. Piping cast into a concrete manhole base shall be provided with manufacturer's recommended water stop collar or other suitable means of providing a watertight, structurally sound connection as recommended by the pipe manufacturer and approved by the Engineer.
- J. Service lines shall be run at a uniform slope not less than one-fourth (1/4) of an inch per foot or two (2) percent toward the point of disposal. Where this is impractical due to depth of sewer main or other structural features, pipes four (4) inches and larger in diameter may be laid at a slope not less than one-eighth (1/8) of an inch per foot, or one (1) percent when first approved by Engineer.
- K. Service line cleanouts shall be installed not more than 75 feet apart, including the developed length of the cleanout pipe.

3.7 VIDEO INSPECTION

Video inspection shall be conducted on all new gravity sewer lines, regardless of pipe material used. Refer to Specification Section 02705.

TECHNICAL SPECIFICATIONS

3.8 DEFLECTION TESTING OF PIPE

Deflection testing shall be conducted on all PVC pipe used for gravity sewer lines. Refer to Specification Section 02705.

3.9 WATER MAIN CONFLICT

- A. Sewer lines crossing water mains shall be laid to the grades indicated on the drawings. At crossings, one full length of sewer pipe shall be located so both joints will be as far from the water main as possible. Special structural support for the water and sewer pipes may be required. Sanitary sewers must cross at least 24 inches above or below water mains.
- B. Further, the sanitary sewer shall be encased in a concrete envelope a minimum of 10'-0" either side of the centerline of the water main. The concrete envelope shall provide a minimum of 8" of concrete cover around the sewer. In lieu of the concrete envelope, the sewer line may be reconstructed of ductile iron pipe such that a 20 foot length of ductile iron sewer is centered over the water main.
- C. Where a 10 foot separation between a sewer manhole and the water main cannot be maintained, the water main shall be cut as required so that a 20 foot length of pipe may be centered at the nearest point to the manhole.

3.10 LOW PRESSURE AIR TESTING

Refer to Specifications Section 02705.

TECHNICAL SPECIFICATIONS

DIVISION 2 0 – SITE CONSTRUCTION

SECTION 02705

PIPELINE INSTALLATION AND TESTING

PART 1	GENERAL
1.1	WORK INCLUDED
1.2	GENERAL
1.3	DELIVERY, STORAGE, AND HANDLING
PART2	PRODUCTS
2.1	TEST EQUIPMENT
PART3	EXECUTION
3.1	INSTALLATION
3.2	FIELD TESTING

TECHNICAL SPECIFICATIONS

PART 1 GENERAL

1.1 WORK INCLUDED

This section covers field installation, hydrostatic pressure and leakage testing, lamping, and disinfection of piping specified herein. The term "piping" shall be used in this section to refer to piping systems, pipelines, or sections thereof. Pipe trenching, embedment, and backfilling are covered in other sections.

1.2 GENERAL

- A. Unless otherwise specified, testing of piping shall be completed prior to final cleaning and disinfection.
- B. The Engineer shall be present during installation and testing and shall be notified of the time and place at least 3 days prior to commencement of the work. All work shall be performed to the satisfaction of the Engineer.
- C. A testing schedule and test procedure shall be submitted to the Engineer for review and acceptance not less than 21 days prior to commencement of testing. The schedule shall indicate the proposed time and sequence of testing of the piping. The testing procedure shall establish the limits of the piping to be tested, the positions of all valves during testing, the locations of temporary bulkheads, and all procedures to be followed in performing the testing.
- D. Following completion of testing, the water shall be disposed of in a manner acceptable to the Engineer. Unless otherwise permitted, the water shall be kept out of the remainder of the piping.

1.3 DELIVERY, STORAGE, AND HANDLING

Pipe, fittings, and appurtenances shall be transported, stored, and handled in a manner which prevents damage. Hooks shall not be permitted to come into contact with joint surfaces. Damaged pipe and fittings shall be removed from the site.

PART 2 PRODUCTS

2.1 TEST EQUIPMENT

- A. All necessary connections between the piping to be tested and the water source, together with pumping equipment, water meter, pressure gauges, flanges, valves, bulkheads, bracing, blocking, other sectionalizing devices, and all other equipment, materials, and facilities required to perform the specified tests, shall be provided by the Contractor. All temporary sectionalizing devices shall be removed upon completion of testing. Vents shall be provided in test bulkheads where necessary to expel air from the piping to be tested.

TECHNICAL SPECIFICATIONS

- B. Test pressures for pressure lines shall be applied by means of a force pump sized to produce and maintain the required pressure without interruption during the test.
- C. Water meters and pressure gauges shall be accurately calibrated and shall be subject to review and acceptance by the Engineer.
- D. Permanent gauge connections shall be installed at each location where test gauges are connected to the piping during the required tests. Drilling and tapping of pipe walls will not be permitted. Upon completion of testing, each gauge connection shall be fitted with a removable plug or cap acceptable to the Engineer.

PART 3 EXECUTION

3.1 INSTALLATION

- A. General
 - 1. Provide non-conducting dielectric connections wherever jointing dissimilar metals.
 - 2. Route piping in orderly manner and maintain gradient.
 - 3. Group piping whenever practical at common elevations.
 - 4. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
 - 5. Provide clearance for installation of insulation and access to valves and fittings.
 - 6. Prepare pipe, fittings, supports, and accessories not prefinished, ready for finish painting. Refer to Section 09900.
 - 7. Install bell and spigot pipe with bell end upstream.
 - 8. Unions shall be provided in piping at locations adjacent to devices or equipment which may require removal in the future and at locations required by the drawings or specifications.
 - 9. Piping shall not obstruct openings or passageways.
 - 10. Pipe shall be cut from measurements taken at the site and not from the drawings, and all necessary provisions shall be taken in laying out piping to provide throughout for expansion and contraction.
 - 11. Taps for pressure gauge connections on the suction and discharge of pumping units shall be provided with a nipple and a shutoff gauge cock.
 - 12. A snubber and gauge cock shall be provided in the piping to each pressure gauge.

TECHNICAL SPECIFICATIONS

13. Install piping to conserve building space and not interfere with use of space.
 14. Provide access doors where valves and fittings are not exposed.
 15. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc-rich primer to welding.
 16. Establish invert elevations, slopes for drainage to ¼ inch per foot minimum except as noted on the drawings. Maintain gradients.
 17. Install all water piping on the warm side of the building thermal insulation.
- B. Inspection. Pipe and fittings shall be carefully examined for cracks and other defects immediately before installation; spigot ends and bells shall be examined with particular care. All defective pipe and fittings shall be removed from the site of the work.
- C. Laying Pipe
1. Pipe shall be protected from lateral displacement by pipe embedment material installed as specified in the trenching section. Pipe shall not be laid in water or under unsuitable material weather or trench conditions.
 2. During cold weather, particular care shall be taken in handling and laying pipe to prevent impact damage.
 3. Pipe shall be laid with bell ends facing the direction of laying, except when reverse laying is specifically permitted by the Engineer.
 4. Foreign matter shall be prevented from entering the pipe during installation.
 5. Whenever pipe laying is stopped for water lines, the open end of the line shall be sealed with a watertight plug. All water shall be removed from the trench prior to removing the plug.
 6. Whenever pipe laying is stopped for sewer lines, the open end of the pipe shall be closed with a tight-fitting end board to keep soil out. The end board shall have perforations near the center to admit water and prevent flotation of the pipe in the event the trench becomes flooded.
 7. Pipe shall be kept shaded and as cool as possible during installation and shall be covered with backfill immediately after installation.
 8. Water mains crossing sewers shall be laid to provide a minimum vertical distance of 24” between the outside of the water main and the outside of the sewer. This shall be the case when the water main is either above or below the sewer. At crossings, one full

TECHNICAL SPECIFICATIONS

length of water pipe shall be located so both joints will be as far from the sewer as possible. Special structural support for the water and sewer pipes may be required.

D. Cleaning

1. Foreign material shall be kept out of the pipe during installation.
2. No debris, tools, clothing, or other foreign objects shall be placed in the pipe.
3. The interior of all pipe and fittings shall be thoroughly cleaned before installation and shall be kept clean until the work has been accepted.

E. Alignment

1. Piping shall be laid to the lines and grades indicated on the drawings. Pipelines or runs intended to be straight shall be laid straight. Deflections from a straight line or grade shall not exceed the maximum deflections specified by the manufacturer.
2. Unless otherwise specified or indicated on the drawings, and subject to acceptance by the Engineer, either shorter pipe sections or fittings shall be installed as required to maintain the indicated alignment or grade.
3. Batter boards, laser beam equipment, or surveying instruments shall be used to maintain alignment and grade. If batter boards are used to determine and check pipe sub-grades, they shall be erected at intervals of not more than 25 feet. At least three batter boards shall always be maintained in proper position when trench grading is in progress.
4. If laser beam equipment is used, periodic elevation measurements shall be made with surveying instruments to verify accuracy of grades. If such measurements indicate thermal deflection of the laser beam due to differences between the ground temperature and the air temperature within the pipe, precautions shall be taken to prevent or minimize further thermal deflection.

F. Cutting Pipe. Cutting shall comply with the pipe manufacturer's recommendations and with Chapter 7 of AWWA Manual M23. Cuts shall be smooth, straight, and at right angles to the pipe axis. After cutting, the end of the pipe shall be dressed to remove all roughness and sharp corners and shall be beveled in accordance with the manufacturer's instructions.

G. Jointing

1. Pipe joints shall be carefully and neatly made in accordance with the requirements which follow.
2. Threaded joints shall conform to ANSI B1.20.1, NPT, and shall be full and cleanly cut with sharp dies. Not more than three threads at each pipe connection shall remain exposed after installation. Ends of pipe shall be reamed, after threading and before

TECHNICAL SPECIFICATIONS

- assembly, to remove all burrs. Threaded joints in stainless steel piping shall be made up with Teflon thread sealer and Teflon thread tape applied to all male threads.
3. For flared joints, ends of annealed copper tubing shall be cut square and all burrs shall be removed. Flared ends shall be uniform without scratches or grooves.
 4. Soldered and Brazed Joints: Joints in 2-inch and larger copper tubing shall be brazed. Where solder fittings are specified for lines smaller than 2-inch, joints may be thoroughly cleaned with flint paper and coated with a thin film of flux.
 5. Each joint shall be uniformly heated to the extent that filler metal will melt on contact. While the joint is still hot, surplus filler metal and flux shall be removed with a rag or brush.
 6. Solvent – Welded Joints: Joint preparation, cutting and jointing operations shall comply with ASTM D2855. Pipe ends shall be beveled or chamfered to the dimensions recommended by the Manufacturer. Joints shall be suitably restrained to prevent movement during the curing time. Pressure testing shall not take place until after the joint has cured.
 7. Flanged joints: Bolts shall be sufficiently tightened to achieve a good seal without distortion of the flange. A plain washer shall be installed under the head and nut of the bolts used to connect plastic pipe flanges.
 8. Stab-Type Joints. Jointing shall conform to the instructions and recommendations of the pipe manufacturer. All surfaces for gasketed joints shall be lubricated immediately before the joint is completed. Gaskets and lubricants shall be supplied by the pipe manufacturer, shall be suitable for use in potable water, shall be compatible with the pipe materials, shall be stored in closed containers, and shall be kept clean. Each spigot shall be suitably beveled to facilitate assembly.
 9. Mechanical Joints. Mechanical joints shall be carefully assembled in accordance with the manufacturer's recommendations. If effective sealing is not obtained, the joint shall be disassembled, thoroughly cleaned, and reassembled. Over tightening of bolts to compensate for poor installation practice will not be permitted.
 10. For compressed joints, ends of pipe and tubing shall be cut square and all burrs shall be removed. Joint contact surfaces shall be cleaned with steel wool before assembly.
 11. Push-On Joints: Jointing operations shall be in accordance with manufacturer's recommendations. Spigot ends shall be beveled and the joint surfaces lubricated with a heavy vegetable soap solution before the assembly. The lubricant shall be suitable for use in potable water.

TECHNICAL SPECIFICATIONS

H. Connections with Existing Piping

1. Connections between new work and existing piping shall be made using fittings suitable for the conditions encountered. Each connection with an existing pipe shall be made at a time and under conditions which will least interfere with service to customers, and as authorized by the owner. Facilities shall be provided for proper dewatering and for disposal of water removed from the dewatered lines and excavations without damage to adjacent property.
2. Special care shall be taken to prevent contamination of potable water lines when dewatering, cutting into, and making connections with existing pipes. No trench water, mud, or other contaminating substances shall be permitted to enter the lines. The interior of all pipe, fittings, and valves installed in such connections shall be thoroughly cleaned and then swabbed with, or dipped in, a 200 mg/L chlorine.

- I. Connection of Piping of Different Material. Contractor shall furnish and install transition fittings for all connections between piping of different materials or wall thicknesses whether of new work with existing work or new work with other new work. Transitions shall be made using transition fittings suitable for the conditions of the work. Contractor's proposed transition fitting for each location and service shall be submitted to the Engineer for review and acceptance.

J. Service Connections

1. Tapping saddles or tapping sleeves shall be used for all service connections 2 inches and smaller. Direct tapping of PVC pipe will not be permitted. Fittings shall be used for service connections larger than 2 inches.
2. Service connections for sewers shall not be installed as vertical risers but shall be laid on a slope not to exceed 2 vertical to 1 horizontal. Each service connection pipe shall have a solid bearing on undisturbed earth.

K. Installation of Unions, Adapters, and Valves

1. Install unions within 2 feet downstream of valves and at equipment or apparatus connections.
2. Install brass male adapters each side of valves in copper piped system. Sweat solder adapters to pipe.
3. Install valves with stems upright or horizontal, not inverted.
4. Install ball or gate valves for shut-off and to isolate equipment or part of systems.
5. Install ball valves for throttling, bypass, or manual flow control services.

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L. Concrete Encasement

1. Concrete encasement shall be installed as indicated on the drawings.
2. Concrete and reinforcing steel shall be as specified in the cast-in-place concrete section.
3. All pipe to be encased shall be suitably supported and blocked in proper position and shall be anchored against flotation.

M. Reaction Anchorage and Blocking

1. All bell-and-spigot or all-bell tees, Y-branches, bends, valves, and plugs which are installed in piping shall be provided with suitable reaction blocking, or other acceptable means of preventing movement of the pipe caused by internal pressure.
2. Concrete blocking shall extend from the fitting to solid, undisturbed earth and shall be installed so that all joints are accessible for repair. The dimensions of concrete reaction blocking shall be as indicated on the drawings or as directed by the Engineer. If the absence of suitable solid vertical excavation face is due to improper trench excavation, the Contractor shall furnish and install acceptable metal harness anchorages using ductile iron pipe of the appropriate class at no additional cost to the owner.
3. Reaction blocking, anchorages, or other supports for fittings installed in fills or other unstable ground shall be provided as required by the drawings or as directed by the Engineer.

N. Installation of Welded Steel Pipe

1. Where welded piping is specified, make welds by oxy-acetylene process or electric process in accord with ANSI B31.1.
2. Welding Rods: Grade recommended for purpose by manufacturer, each rod stamped with manufacturer's name and identification.
3. Line Welds: Single V-butt type.
 - a. Mill or machine bevel pipe at 37-1/2 degrees to within 1/16 IN of outside wall, except that in field limited amount of pipe may be flame beveled.
 - b. Pipe with a wall thickness of 3/16 in. or less need not be beveled but may be welded by melting down into, and building up over abutting ends.
 - c. Separate abutting ends of joints before welding to permit complete fusion to bottom without overlapping.
 - d. Tack in two or more points to maintain alignment and fusion weld.

TECHNICAL SPECIFICATIONS

- e. Weld continuously around pipe.
- 4. Make all welds of sound weld metal, thoroughly fused into ends of pipe, and to bottom of vee.
 - a. Build in excess of pipe wall to give reinforcement of one-fourth pipe wall thickness.
 - b. Weld metal shall present a gradual increase in thickness from surface of pipe to center of weld.
 - c. Minimum weld width: Two and one-half times thickness of pipe wall.
- 5. Use welding ells at all turns in welded lines except where pipe bends are indicated or are required for flexibility. Mitered ells will not be permitted.
- 6. Do not weld pipe couplings in place of welding fittings for any branch connections.
- 7. Conical Welding Fittings:
 - a. Scribe and cut openings in main pipes for welded branches accurately taking care to remove all of plug and cuttings from main pipe.
 - b. Full weld fillet welds for full depth of fillet, with additional beds to form well rounded connection as recommended by the manufacturer.
 - c. Partially filled fillets not acceptable.
- 8. Cut all openings into pipe for welded connections accurately to give carefully matched intersections.
- 9. Make all welded fittings of same material with same pressure and temperature rating as pipe with which they are used.
- 10. Make flanged connections to control valves, pump suction, and specialties with ANSI standard welding neck flanges.
 - a. All other flange connections may be made with slip-on flanges provided they are seal welded on inside.
- 11. Fuse all fillet welds for flanges or fittings into pipe and plate for minimum distance of 1-1/2 times pipe wall thickness and depth of weld of 1-1/4 times pipe wall thickness.

3.2 FIELD TESTING:

A. Acceptance Tests for Gravity Sanitary Sewer:

- 1. General:

TECHNICAL SPECIFICATIONS

- a. All sewers shall be visually inspected, mandrelled and tested for infiltration and exfiltration.
 - b. Exfiltration testing shall be achieved by a low pressure air leakage test.
 - c. The Contractor shall furnish all labor, equipment, tools and materials and shall perform all acceptance tests.
 - d. All tests shall be witnessed and recorded by the Engineer.
2. Alignment:
- a. Sewer shall be inspected (lamped) by flashing a light between manholes or by physical therapy passage where space permits.
 - b. Contractor shall clean pipe of excess mortar, joint sealant and other dirt and debris prior to inspection.
 - c. Determine from Lamping or Physical Inspection:
 - (1) Presence of any misaligned, displaced, or broken pipe.
 - (2) Presence of visible infiltration or other debris..
 - d. Correct defects as required prior to conducting leakage tests.
3. Leakage tests. The leakage tests shall be performed on the full length of all sewer lines prior to acceptance.
- a. Infiltrations leakage test. All sections of sewer lines shall be checked for infiltration. At each manhole where flow exists in the pipe, measurements shall be made to determine the quantity by capture or by inserting V-notch weirs in the pipe.

Repair leaks and defects until the leakage, as measured, in any section does not exceed 50 gallons per inch of pipe diameter per day per mile of pipe. (0.0375 gallons per inch of pipe diameter per hour per 100 feet of pipe).
The infiltration check and repairs shall be completed on any section prior to making the exfiltration test.
 - b. Air leakage testing. The Contractor shall perform low pressure air testing of the sewer lines for exfiltration testing. Air testing shall comply with ASTM F1417.

The general testing procedure shall be as follows: Raise pressure to 4.0 psi in sections being tested, throttle the air supply to maintain between 4.0 and 3.5 psi for at least two minutes in order to allow equilibrium between air temperature and pipe

TECHNICAL SPECIFICATIONS

walls to be obtained. After temperature has stabilized, allow the pressure to decrease to 3.5 psi. At 3.5 psi begin timing to determine the time required for pressure to drop to 2.5 psi. If the time for the air pressure to decrease from 3.5 to 2.5 psi is greater than that shown in the table below, the pipe shall be presumed free of defects.

Required Time for Length (min:sec)

Pipe Size (in.)	100 L.F.	200 L.F.	300 L.F.	400 L.F.
8	7:33	7:33	7:36	10:08
10	9:27	9:27	11:52	15:50
12	11:20	11:24	17:06	22:48
15	14:10	17:48	26:43	35:37
18	17:00	25:39	38:28	51:17
21	19:50	34:54	52:21	69:48
24	22:48	45:35	68:23	91:10
27	28:51	57:42	86:33	115:24

If air test fails to meet above requirements, repeat test as necessary after all leaks and defects have been repaired.

In areas where ground water is known to exist, increase the test pressure by 0.43 psi for each foot of depth that the ground water is above the top of the pipe.

- c. Manhole testing: The Contractor shall perform a vacuum exfiltration test on each manhole. Vacuum testing equipment shall be as manufactured by Cherne Industries, P.A. Glazier, Inc. or approved equal.

Preliminary vacuum testing shall be conducted following manhole construction, including connections to piping, and prior to backfilling. No grout shall be placed in horizontal joints until manhole has passed both vacuum tests. All lifting holes shall be grouted. Manholes which fail the test shall be reconstructed as required to adequately seal the manhole. Grouting of leak from the interior or exterior will not be acceptable. Final vacuum testing shall be performed following backfilling and setting of the lid and the frame.

Plug all pipe entering manhole. Securely brace all plugs as required. Install testing lead in manhole frame and inflate seal in accordance with manufacturer's

TECHNICAL SPECIFICATIONS

recommendation. A vacuum of 10 inches of mercury shall be drawn and the vacuum pump shut off. With all valves closed, measure the time required for the vacuum to drop to 9 inches of mercury. The manhole shall pass if the time is greater than 120 seconds for a 48-inch diameter manhole and 150 seconds for a 60-inch diameter manhole.

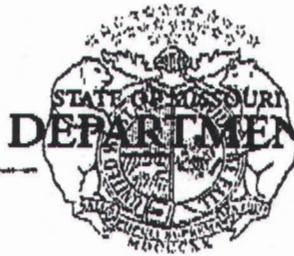
If manhole fails the initial test, perform necessary repairs and retest until an acceptable test meeting the above requirement is achieved.

- d. Manhole Water Testing: Water testing of manholes, in lieu of the exfiltration test, is prohibited except where otherwise approved by the Engineer. Where water testing is approved exfiltration tests shall be conducted by blocking off all manhole openings, filling the manhole to the top with water, and measuring the water required to maintain a constant level in the manholes.

For the purposes of determining the maximum allowable leakage, manholes shall be considered as sections of pipe of the diameter and height of the manhole.

4. Mandrel Testing:

- a. Mandrel testing shall not be conducted prior to 30 days after backfilling is complete.
- b. Each reach of PVC gravity sewer shall be checked for excessive deflection by pulling a mandrel through the pipe.
- c. Mandrell shall be provided by Contractor.
- d. Mandrell size shall be 95 percent of the pipe inside diameter.
- e. Pipe with diametrical deflection exceeding five percent shall be uncovered and the bedding and backfill replaced to prevent excessive deflection.
- f. Repaired pipe shall be retested after repair.
- g. Contractor shall submit all deflection test results to the Engineer.



Jeremiah W. (Jay) Nixon, Governor

Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

dnr.mo.gov

FEB 14 2011

Mrs. Becky Baltz, District Engineer
Missouri Department of Transportation
3901 East 32nd Street
Joplin, MO 64804

OPTIONAL FORM 99 (7-00)		# of pages ▶ 5
FAX TRANSMITTAL		
To	DANSALISBURG	From Karen B. DNR
Dept./Agency	MoDOT	Phone #
Fax #		Fax #
NON 7640-01-017-7388		GENERAL SERVICES ADMINISTRATION
5000-101		MAILED 2/16/11
IS THIS IT?		

Dear Applicant:

Enclosed please find construction permit number CPSE00203 for MoDOT sewer extension in the City of Neosho, Newton County, Missouri. This permit authorizes the construction of the facilities described in the application and permit, and is issued in accordance with the regulations of the Missouri Clean Water Commission. The engineering plans and specifications were reviewed to determine compliance with 10 CSR 20-8.020. Revised engineering plans and/or specifications must be submitted prior to making any changes for the work described in the permit.

The enclosed loading sheet indicates the facility has adequate capacity to serve the proposed sewer extension. As the facility approaches the 80% capacity level the City should begin its planning for the expansion of the wastewater treatment facility. The Department of Natural Resources administers the State Revolving Fund which can assist the City in funding the needed upgrades to the system.

More information about the State Revolving Fund may be found in the following links:
<http://dnr.mo.gov/env/wpp/srf/wastewater-assistance.htm>

Department staff may conduct random, on-site inspections of some construction projects to further ensure conformity with the requirements.

This permit will expire one year from the date of issuance unless justification for extension is presented thirty (30) days prior to expiration.

The enclosed permit applies only to the construction of water pollution control components; it does not apply to other environmentally regulated areas. The enclosed permit is invalid for projects required to comply with the requirements contained in 10 CSR 20-Chapter 4, "Grants".

Shoal Creek WWTF
Page 2 of 2

In addition to the requirements for a construction permit, land disturbance activities of one (1) or more acres require a Missouri State Operating Permit to discharge stormwater (10 CSR 20-6.200). This permit requires best management practices sufficient to control runoff and sedimentation in order to protect waters of the state. For more information or to obtain the proper forms, please contact the Department of Natural Resources, Southwest Regional Office by calling 417-891-4300.

Missouri Clean Water Commission Regulations 10 CSR 20-6.010(5)(D) and 10 CSR 20-6.010(6)(B) require that the engineer certify that the construction has been completed in accordance with the approved plans and specifications and requires that the owner or continuing authority apply for a Letter of Authorization. The enclosed Application for Letter of Authorization shall be completed by both the engineer and the owner / continuing authority and returned to the Southwest Regional Office.

If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission pursuant (AHC) to 10 CSR 20-1.020 and Section 621.250, RSMo. To appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal shall be directed to: Administrative Hearing Commission, Truman Building, Room 640, 301 W. High Street, P.O. Box 1557, Jefferson City, MO 65102, Phone: 573-751-2422, Fax: 573-751-5018, website: www.oa.mo.gov/ahc.

If you have questions please contact Mr. Jadranko Sarar by calling 417-891-4300 or via mail at Southwest Regional Office, 2040 W. Woodland, Springfield, Missouri 65807-5912.

Sincerely,

SOUTHWEST REGIONAL OFFICE



Cynthia S. Davies
Regional Director

CSD/jsk

Enclosures

c: Mr. Michael C. Middleton P.E.
City of Neosho

**NEWTON/WPC
SHOAL CREEK WWTF - CP
MoDOT SEWER EXTENSION**

Construction Permit CPSE 00203

**STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES**

MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

The Missouri Department of Natural Resources hereby issues a permit to:

Missouri Department of Transportation
3901 East 32nd Street
Joplin, MO 64804

for the construction of (described facilities):

(SEE ATTACHED FACILITY DESCRIPTION)

Permit Conditions:

Construction shall be in accordance with the approved engineering plans and specifications received in the office on November 15, 2010 and January 31, 2011.

Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources.

As the Department of Natural Resources does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

A representative of the Department may inspect the work covered by this permit during construction. Issuance of a permit to operate by the Department will be contingent on the work substantially adhering to the approved plans and specifications.

This permit applies only to the construction of water pollution control components: it does not apply to other environmentally regulated areas.

February 14, 2011
Effective Date

Sara Parker Pauley
Sara Parker Pauley, Director, Department of Natural Resources

February 13, 2012
Expiration Date

Cynthia S. Davies
Cynthia S. Davies, Regional Director, Southwest Regional Office

**NEWTON/WPC
SHOAL CREEK WWTF - CP
MoDOT SEWER EXTENSION**

Construction Permit CPSE 00203

FACILITY DESCRIPTION:

Wastewater collection systems to include:

Gravity sewer main collection systems including approximately 800 linear feet of eight-inch (8") nominal diameter SDR-26 PVC gravity sewer line; four (4) standard manholes; installation in accordance with the ASTM installation standard including bedding requirements that correspond to the pipe material of construction; and including all necessary appurtenances to make a complete and usable gravity sewer line collection system.

These wastewater collection systems will serve a vehicle wash, maintenance building and small offices, City of Neosho, NW ¼, NW ¼, Section 36, T25N, R32W, Newton County, Missouri. The average daily flow to be contributed by this extension is estimated to be 750 gallons per day with a peak flow of 3,000 gallons per day containing an estimated 1.5 pounds per day of Five-Day Biochemical Oxygen Demand (LB BOD₅ / day). City of Neosho will be the continuing authority and wastewater will be received by the Shoal Creek Wastewater Treatment Facility (MO0040185).

Missouri Division of Labor Standards

WAGE AND HOUR SECTION



JEREMIAH W. (JAY) NIXON, Governor

Annual Wage Order No. 17

Section 073

NEWTON 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

Carla Buschjost, Director
Division of Labor Standards

This Is A True And Accurate Copy Which Was Filed With The Secretary of State: March 10, 2010

Last Date Objections May Be Filed: April 9, 2010

Prepared by Missouri Department of Labor and Industrial Relations

Building Construction Rates for
NEWTON County

Section 073

OCCUPATIONAL TITLE	**Effective Date of Increase	*	Basic Hourly Rates	Over-Time Schedule	Holiday Schedule	Total Fringe Benefits
Asbestos Worker			\$15.00	FED		\$4.98
Boilermakers			\$32.31	57	7	\$21.79
Bricklayers-Stone Mason			\$25.92	24	74	\$14.38
Carpenter			\$21.97	6	63	\$10.90
Cement Mason			\$21.41	64	4	\$9.12
Electrician (Inside Wireman)			\$23.40	27	9	\$10.46 + 8%
Communication Technician			\$23.40	FED		10.46
Elevator Constructor		a	\$39.610	26	54	\$21.428
Operating Engineer						
Group I			\$23.78	84	4	\$11.00
Group II			\$22.19	84	4	\$11.00
Group III			\$17.00	FED		\$4.72
Group III-A			\$22.19	84	4	\$11.00
Group IV						
Group V			\$14.27	84	4	\$11.00
Pipe Fitter		b	\$26.50	19	1	\$13.07
Glazier			\$21.55	36	52	\$4.35
Laborer (Building):						
General			\$19.00	29	64	\$9.95
First Semi-Skilled			\$21.90	29	64	\$9.95
Second Semi-Skilled			\$20.00	29	64	\$9.95
Lather			USE CARPENTER RATE			
Linoleum Layer & Cutter			\$30.00	41	11	\$10.05
Marble Mason			\$20.62	124	74	\$12.03
Millwright			\$22.22	6	63	\$10.90
Iron Worker			\$24.50	50	4	\$21.50
Painter			\$19.18	7	14	\$10.42
Plasterer			\$21.65	64	4	\$9.34
Plumber		b	\$26.50	19	1	\$13.07
Pile Driver			\$22.22	6	63	\$10.90
Roofer			\$20.71	10	2	\$6.92
Sheet Metal Worker			\$25.91	4	24	\$12.64
Sprinkler Fitter			\$30.84	33	19	\$15.80
Terrazzo Worker			\$27.48	124	74	\$13.60
Tile Setter			\$20.62	124	74	\$12.03
Truck Driver-Teamster						
Group I			\$25.92	31	35	\$9.40
Group II			\$26.08	31	35	\$9.40
Group III			\$26.07	31	35	\$9.40
Group IV			\$26.19	31	35	\$9.40
Traffic Control Service Driver						
Welders-Acetylene & Electric		*				

Fringe Benefit Percentage is of the Basic Hourly Rate

Attention Workers: If you are not being paid the appropriate wage rate and fringe benefits contact the Division of Labor Standards at (573) 751-3403.

**NEWTON COUNTY
OVERTIME SCHEDULE - BUILDING CONSTRUCTION**

FED: Minimum requirement per Fair Labor Standards Act means time and one-half (1 ½) shall be paid for all work in excess of forty (40) hours per work week.

NO. 4: Means the regular working day shall consist of eight (8) hours labor on the job between six (6) a.m. and six-thirty (6:30) p.m. and the regular working week shall consist of five (5) consecutive eight (8) hour days beginning with Monday and ending with Friday of each week. 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 outside the regular working hours and performed during the regular work week and Saturday work, shall be paid at one & one-half (1½) times the regular rate. All recognized holidays or days locally observed as such, and Sundays shall be paid at the double (2) time rate of pay. Also, there may be a 40-hour work week which would consist of ten (10) hours each day for Monday, Tuesday, Wednesday, Thursday or Friday.

NO. 6: Means eight (8) hours shall constitute a standard work day, and forty (40) hours per week shall constitute a week's work. All time worked outside of the standard work day and on Saturday shall be classified as overtime and paid the rate of time and one-half (1½). All work done on Sunday and recognized holidays must be paid for at the double (2) time rate. The Employer shall have the option of working five (5) eight (8) hour days or four (4) ten (10) hour days to constitute a normal forty (40) hour work week. Work in excess of eight (8) hours per day (when working 5-8's) or ten (10) hours per day (when working 4-10's) or forty (40) hours per week shall be paid at the overtime rate of time and one-half (1½). When the four (4) day ten (10) hour work week is in effect, the standard work week shall consist of forty (40) hours, Monday through Friday, which will consist of any four (4) ten (10) hour days within the five (5) day period. In the event the job is down for any reason beyond the control of the Employer, then Friday and/or Saturday may, at the option of the Employer, be worked as a make-up day, straight time not to exceed ten (10) hours per day or forty (40) hours per week. Starting time will be designated by the Employer. When the five (5) day eight (8) hour work week is in effect, forty (40) hours per week shall constitute a week's work, normal work week being Monday through Friday. In the event the job is down for any reason beyond the control of the Employer, then Saturday may, at the option of the Employer, be worked as a make-up day at straight time not to exceed eight (8) hours per day or forty (40) hours per week. In instances where work days are lost due to circumstances beyond the Contractor's control, make-up days may be used. Scheduling conflicts are not valid reasons. Make-up days are not to be used to make up lost time due to recognized holidays.

NO. 7: Means work between the hours of 7:00 a.m. and 6:00 p.m. daily, Monday through Saturday, as assigned by the Employer shall be considered regular hours. Weekend work shall be paid at the rate of one and one-half (1 ½) times the regular rate of pay. Weekend begins 12:01a.m. Saturday. Overtime is time worked over forty (40) hours per pay period, and shall be paid at the rate of one and one-half (1½) times the regular rate of pay. Sunday and Holidays will be paid at the rate of two (2) times the regular rate of pay.

NO. 10: 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, unless otherwise provided. Crews shall be scheduled to commence at any time between the hours of 5:00 a.m. and 10:00 a.m. or earlier if agreed on by the majority of any one crew. Except as specifically provided for Saturdays, Sundays and holidays, all work performed by Employees anywhere in excess of forty (40) hours in one (1) 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 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. When this Saturday Make Up Day does occur, the Employee may 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) time the regular hourly wage scale. The provision of this Saturday Make Up Day shall not apply to any weeks in which a designated holiday is recognized. Any work performed by Employees anywhere on Sunday or holidays shall be paid at the rate of double (2) time the regular wage scale.

**NEWTON COUNTY
OVERTIME SCHEDULE - BUILDING CONSTRUCTION**

NO. 19: Means eight (8) hours of work, between 8:00 a.m. and 4:30 p.m., shall constitute a day's work. Forty (40) hours of work Monday through Friday shall constitute a workweek. The starting time may be changed to begin between the hours of six (6:00) and ten (10:00) a.m. The normal workweek may be changed to four (4) ten (10) hour days, with the following provisions: Monday through Thursday would be the normal workweek with Friday being used as scheduled workday in case of a day being lost time due to weather, any hours worked before, or after, established starting and quitting times being paid at double (2) time hourly rates of pay. The first two (2) hours performed in excess of an eight (8) hour workday, Monday through Friday, and the first ten (10) hours on Saturday, shall be paid at time and one-half (1½) the basic straight-time rate. All work performed on Sundays and holidays, and in excess of ten (10) hours a day shall be paid at double (2) the basic straight-time rate of pay.

NO. 24: Means eight (8) hours shall constitute a day's work on all classes of work between the hours of 6:00 a.m. and 5:30 p.m., Monday through Friday. The pay for time worked during these hours shall be at the regular wage rate. The regular workweek shall be Monday through Friday. A workweek of four (4), ten (10) hour days may be established on a per job basis. Saturday may be used for a make-up day, when working 5-8's, Friday when working 4-10's. 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 for at the rate of time and one-half (1½) except after eight (8) hours worked, then double (2) time will apply. All time worked on Sundays and the recognized holidays shall be paid at the rate of double (2) time.

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.

NO. 27: Means eight (8) hours of work between the hours of eight (8:00) a.m. and four-thirty (4:30) p.m., shall constitute a work day. Forty (40) hours within five (5) days - Monday through Friday, inclusive - shall constitute a work week. The regular starting time in the morning may be moved not more than one hour prior to 8:00 a.m.; however, in no case shall more than eight (8) hours be worked per day without the applicable overtime rate being paid. When job conditions dictate and as required by the employer, the employer shall be allowed to establish a four (4) day, ten (10) hour per day work week. This work week is defined as Monday through Thursday, with a Friday make-up day. The normal work day under a ten (10) hour four (4) day work week shall be from 8:00 a.m. to 6:30 p.m., with a one hour starting variance. The make-up day of Friday shall be instituted for specific reasons such as loss of production due to weather and Holidays. All hours worked in excess of ten (10) hours per day or forty (40) hours per week or hours worked outside the normal work week shall be paid at the applicable overtime rate. This language is not intended to change the normal five (5) day, eight (8) hours per day work week. All overtime work after a regular work day, (8) hours, Monday through Friday shall be paid at time and one-half (1½). All hours worked on Saturday shall be paid at time and one-half (1½). All other overtime on Sunday and recognized holidays shall be paid for at double (2) the straight-time rate of pay. Shift work performed between the hours of 4:30 p.m. and 1:00 a.m. (second shift) shall receive eight (8) hours pay at the regular hourly rate of pay plus 17.3% for all hours worked. Shift work performed between the hours of 12:30 a.m. and 9:00 a.m. (third shift) shall receive eight (8) hours pay at the regular hourly rate of pay plus 31.4% for all hours worked. 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.

**NEWTON COUNTY
OVERTIME SCHEDULE - BUILDING CONSTRUCTION**

NO. 29: Means eight (8) hours shall constitute a day's work and shall be from 8:00 a.m. to 4:30 p.m., Monday through Friday. Starting time may be advanced or delayed by the employer up to two (2) hours from the regular starting time. Any hours worked in excess of eight (8) hours shall be paid for at one and one-half (1½) times the regular rate of pay. The employer may establish a 4-10's schedule on projects (4 days with 10 hours per day). If using a 4-10's schedule, a Friday make-up day is allowed. If using a 4-10's schedule, any work more than ten (10) hours in a day or forty (40) hours in a work week shall be paid at the time and one-half (1½) rate. Friday make-up days shall not be used to make up for time lost due to recognized holidays. All hours worked between 4:30 p.m. Friday and 4:30 p.m. Saturday shall be paid for at the rate of time and one half. All hours worked from 4:30 p.m. Saturday until 8:00 a.m. Monday and all holidays shall be paid for at double (2) the regular rate of pay. Employees failing to work a regular forty (40) hour week due to inclement weather may work on Saturday at the regular rate of pay.

NO. 31: Means a regular work week shall consist of not more than forty (40) hours of work and all work performed over and above ten (10) hours per day and forty (40) hours per week shall be paid at the rate of time and one-half (1½). A workday is to begin between 6:00 a.m. and 9:00 a.m. at the option of the Employer except when inclement weather or other conditions beyond the reasonable control of the Employer, in which event, the starting time may be advanced or delayed. Work performed on recognized holidays or days observed as such, shall receive time and one-half (1½).

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. 36: Means eight (8) hours shall constitute a work day, Monday through Friday between the hours of 6:00 a.m. and 6:00 p.m. Saturday can be used as a makeup day if time is lost due to weather. All hours in excess of the regular forty (40) hour work week or eight (8) hours per day shall be considered overtime and shall be paid for at the rate of one and one-half (1½) times the regular rate. Employees will be paid at the rate of one and one-half (1½) times their regular rate for work performed on Saturdays. Sundays and holidays worked are to be paid at double (2) the regular hourly rate. Four (4) ten-hour days, at the option of the Employer, shall be the standard work week, consisting of a consecutive ten-hour period, Monday through Thursday or Tuesday through Friday, between the hours of 6:00 a.m. and 6:00 p.m. Forty (40) hours per week shall constitute a week's work.

NO. 41: The regular work day shall be eight (8) hours from 6:00 a.m. to 6:30 p.m. Starting time may be between 6:00 a.m. and 10:00 a.m. The regular work week shall be forty (40) hours, beginning between 6:00 a.m. and 10:00 a.m. on Monday and ending between 2:30 p.m. and 6:30 p.m. on Friday. All hours in excess of the regular work day and work week, and all work outside of the regular work day or work week shall be considered overtime. Overtime on days recognized as regular work days and on Saturday shall be paid for at the rate of one and one-half (1½) times the regular rate. Overtime on Sundays and recognized Holidays shall be paid for at the rate of double (2) time.

NO. 50: Means eight (8) hours constitute a normal day's work Monday through Friday. Any time worked over eight (8) hours will normally be paid at time and one-half (1½) except for exclusions stated in some following additional sentences. The Employer, at his discretion, may start the work day between 6:00 a.m. and 9:00 a.m. Any schedule chosen shall be started at the beginning of the work week (Monday) and used for at least five days. Work may be scheduled on a four (4) days a week (Monday through Thursday) at ten (10) hours a day schedule. If such a schedule is employed, then Friday may be used as a make-up day when time is lost due to inclement weather. Time and one-half (1½) shall be paid for any work in excess of eight (8) hours in any regular work day Monday through Friday unless working 4-10's, then time and one-half (1½) after ten (10) hours. All work performed on Saturday will be time and one-half (1½). Double (2) time shall be paid for all work on Sundays and recognized holidays.

NO 56: Means the regular work day shall consist of eight (8) hours between 8:00 a.m. and 4:30 p.m. An optional four day work week may be utilized with the ten (10) hour clause, days Monday through Thursday or Tuesday through Friday. Work hours shall be from 7:00 a.m. to 5:30 p.m. any work performed on Monday or Friday outside the regular scheduled four (4) days shall be at one and one half (1 ½) the regular rate of pay. Work performed outside of the regular work day, and on Saturdays shall be paid at one and one half (1 ½) the regular rate of pay. Sundays and holidays shall be paid at double (2) time the regular rate of pay.

**NEWTON COUNTY
OVERTIME SCHEDULE - BUILDING CONSTRUCTION**

NO. 57: 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. The above may be changed by mutual consent of authorized personnel. When circumstances warrant, the Employer may change the regular workweek to four (4) ten-hour days at the regular time rate of pay. It being understood that all other pertinent information must be adjusted accordingly. All time worked before and after the established workday of eight (8) hours, Monday through Friday, 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.

NO. 64: Means eight (8) hours shall constitute a day's work beginning at 8:00 a.m. and ending at 4:30 p.m. Forty (40) hours shall constitute a week's work, Sunday through Saturday. In the event time is lost due to weather or conditions beyond the control of the Employer, the Employer may schedule work on Saturday at straight time. All work over eight (8) hours in one day, forty (40) hours in one week, or on Saturday (except as herein provided) shall be classified as overtime and be paid at the rate of time and one-half (1½). All work on Sunday or recognized holidays shall be classified as overtime and be paid at the rate of double (2) time. When the four (4) day ten-hour work week is in effect, the standard work day shall be consecutive ten (10) hour periods. Forty (40) hours per week shall constitute a week's work Sunday through Saturday inclusive. In the event the job is down for reasons beyond the contractors control, then Friday and/or Saturday may, at the option of the Employer be worked as a make-up day, straight time not to exceed ten (10) hours per day or forty (40) hours per week.

NO. 84: The regular working starting time of 8:00 a.m. (and resulting quitting time of 4:30 p.m.) may be moved forward to 6:00 a.m. or delayed one (1) hour to 9:00 a.m. Except as provided in this Article, eight (8) hours a day shall constitute a standard work day and forty (40) hours per week shall constitute a weeks' work, which shall begin on Sunday and end on Saturday. All time worked outside of the standard work day and on Saturday shall be classified as overtime and paid at the rate of time & one-half (1½) (except as herein provided). All time worked on Sunday and recognized holidays shall be classified as overtime and paid at the rate of double (2) time. The Employer has the option of working either five (5) eight-hour days or four (4) ten-hour days to constitute a normal forty (40) hour work week. When the four (4) ten-hour work week is in effect, the standard work day shall be consecutive ten (10) hour periods, exclusive of the lunch period, beginning at 6:30 a.m. and forty (40) hours per week shall constitute a week's work, Monday through Thursday, inclusive. In the event the job is down for any reason beyond the Employer's control, then Friday and/or Saturday may, at the option of the Employer, be worked as a make-up day, straight time not to exceed ten (10) hours or forty (40) hours per week. When the five (5) eight-hour work week is in effect, forty (40) hours per week shall constitute a week's work, Monday through Friday, inclusive. In the event the job is down for any reason beyond the Employer's control, then Saturday may, at the option of the Employer, be worked as a make-up day, straight time not to exceed eight (8) hours or forty (40) hours per week.

NO. 124: Means eight (8) hours shall constitute a day's work on all classes of work between the hours of 6:00 a.m. and 5:30 p.m., Monday through Friday. The pay for time worked during these hours shall be at the regular wage rate. The regular workweek shall be Monday through Friday. Employment from 4:30 p.m. to 12:00 midnight, Monday through Friday, shall be paid for at one and one-half (1½) times the regular hourly rate. From 12:00 midnight until 8:00 a.m. on any day shall be paid for at twice the regular hourly rate. All time worked on Sundays and the recognized holidays shall be paid at the rate of double (2) time. It is understood that forty (40) hours shall constitute a regular workweek, (5-8's) Sunday Midnight through Friday Midnight, understanding anything over eight (8) hours is one and one-half (1½) times the hourly wage rate.

**NEWTON COUNTY
HOLIDAY SCHEDULE – BUILDING CONSTRUCTION**

NO. 1: All work done on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day shall be paid at the rate of double time. When one of the above holidays falls on Sunday, the following Monday shall be observed. When one of the above holidays falls on Saturday the preceding Friday shall be observed.

NO. 2: All work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day, or the days observed as such, shall be paid at the double time rate of pay.

NO. 4: All work done on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas Day shall be paid at the double time rate of pay. If any of the above holidays fall on Sunday, Monday will be observed as the recognized holiday. If any of the above holidays fall on Saturday, Friday will be observed as the recognized holiday.

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 workweek, 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 too 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. 9: All work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day shall be paid for at the double time rate of pay. Any one of the above listed holidays falling on Sunday shall be observed on the following Monday and paid at the double time rate of pay as all observed holidays, if worked.

NO. 11: All work done on New Year's Day, Memorial Day, Christmas Day, Fourth of July, and Thanksgiving Day shall be paid for at the rate of double time. Positively no work shall be performed on Labor Day. Martin Luther King's Birthday, Veteran's Day and the day after Thanksgiving Day shall be considered optional holidays, and if the employer and employees agree that work will be performed on that day, no premium will be required. Should any of the above holidays fall on Saturday, the holiday will be observed on Friday. Should any of the above holidays fall on Sunday, the holiday will be observed on Monday.

NO. 14: Means the following days are recognized Holidays: Memorial Day, Fourth of July, Thanksgiving Day, Christmas Day, and New Year's Day. No work shall be done on Labor Day. When falling on a Sunday and the following Monday is observed as part of the holiday, then that Monday shall be considered a holiday. Sunday and Holidays will be paid at the rate of 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. 24: All work done on Christmas Day, Thanksgiving Day, New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Presidential Election Day or days locally observed as such, and Sunday shall be recognized as holidays and paid at the double time rate of pay.

NO. 28: All work done on New Year's Day, Veteran's Day, Memorial Day, Independence Day, Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. No work shall be performed on Labor Day except when triple (3) time is paid. When a holiday falls on Sunday, the following Monday shall be observed as the holiday.

**NEWTON COUNTY
HOLIDAY SCHEDULE – BUILDING CONSTRUCTION**

NO. 35: 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 time and one-half (1 ½) the regular rate of pay for such work.

NO. 52: All work performed on Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day shall receive the double (2) time rate of pay.

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. 63: All work done on New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day must be paid for at the double (2) time rate. No work shall be done on Labor Day or the Fourth of July except to preserve life or property. When any of the above named holidays fall on Sunday, the following Monday shall be observed as such holiday. If they fall on Saturday, Friday shall be observed as the holiday.

NO. 64: All work performed on New Year's Day, Decoration Day (Memorial Day), Independence Day (Fourth of July), Labor Day, Thanksgiving Day and Christmas Day shall be paid for at double (2) the regular rate of pay. When any of the above named holidays shall fall on Sunday, the following Monday shall be observed as such holiday. If any other craft is afforded a provision of observing Friday as the holiday when the holiday falls on Saturday, Laborers shall be granted the same provision. If another craft that Laborers are tending recognize a specific holiday that Laborers do not normally recognize, the Laborers tending that craft shall recognize the same holiday.

NO. 74: All work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day, shall be paid at double (2) time of the hourly rate of pay. In the event one of the above holiday's falls on Saturday, the holiday shall be celebrated on Saturday. If the holiday falls on Sunday, the holiday will be celebrated on Monday.

Heavy Construction Rates for
NEWTON County

Section 073

OCCUPATIONAL TITLE	*Effective Date of Increase	Basic Hourly Rates	Over-Time Schedule	Holiday Schedule	Total Fringe Benefits
CARPENTER					
Journeyman		\$27.32	7	16	\$10.55
Millwright		\$27.32	7	16	\$10.55
Pile Driver Worker		\$27.32	7	16	\$10.55
OPERATING ENGINEER					
Group I		\$24.92	5	15	\$11.35
Group II		\$24.57	5	15	\$11.35
Group III		\$24.37	5	15	\$11.35
Group IV		\$22.32	5	15	\$11.35
Oiler-Driver		\$22.32	5	15	\$11.35
LABORER					
General Laborer		\$21.39	4	18	\$9.54
Skilled Laborer		\$21.94	4	18	\$9.54
TRUCK DRIVER-TEAMSTER					
Group I		\$25.92	12	3	\$9.40
Group II		\$26.08	12	3	\$9.40
Group III		\$26.07	12	3	\$9.40
Group IV		\$26.19	12	3	\$9.40

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.

**NEWTON COUNTY
OVERTIME SCHEDULE – HEAVY CONSTRUCTION**

FED: Minimum requirement per Fair Labor Standards Act means time and one-half (1 ½) shall be paid for all work in excess of forty (40) hours per work week.

NO. 4: Means a regular work week shall consist of not more than forty (40) hours of work, Monday through Saturday, and all work performed over and above ten (10) hours per day and forty (40) hours per week shall be paid at the rate of time & one-half (1½). Workers shall receive time and one-half (1½) for all work performed on Sundays and holidays. A work day is to begin between 6:00 a.m. and 9:00 a.m. at the option of the Employer except when inclement weather or other conditions beyond the reasonable control of the Employer prevent work, in which event, the starting time may be delayed, but not later than 12:00 noon. 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 to the worker(s) unless worked.

NO. 5: Means a regular work week shall consist of not more that forty (40) hours work, Monday through Saturday, and all work performed over and above ten (10) hours per day and forty (40) hours per week shall be paid at the rate of time & one-half (1½). Workmen shall receive time and one-half (1½) for all work performed on Sundays and recognized holidays or days observed as such. Double (2) time shall be paid for work on Sunday or recognized holidays when and only if any other craft employees of the same employer at work on that same job site are receiving double (2) time pay for that Sunday or holiday. If a job can't work forty (40) hours, Monday through Saturday, because of inclement weather or other conditions beyond the control of the Employer, Friday and Saturday may be worked as make up days 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). Make up days shall not be utilized for days lost to holidays. A work day is to begin between 6:00 a.m. and 9:00 a.m. at the option of the Employer except when inclement weather or other conditions beyond the reasonable control of the Employer, including requirements of the owner, prevent work. In such event the starting time may be delayed but not later than 12:00 noon. Where one of the holidays falls or is observed during the work week, then all work performed over and above thirty-two (32) hours shall be paid at time & one-half (1½).

NO. 7: Means the regular work week shall start on Monday and end on Friday, except where the Employer elects to work Monday through Thursday, ten (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 work day 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). Make-up days shall not be utilized for days lost due to holidays. 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.

NO. 12: Means a regular work week shall consist of not more than forty (40) hours of work and all work performed over and above ten (10) hours per day and forty (40) hours per week shall be paid at the rate of time & one-half (1½). A workday is to begin between 6:00 a.m. and 9:00 a.m. at the option of the Employer except when inclement weather or other conditions beyond the reasonable control of the Employer, in which event, the starting time may be advanced or delayed. Workers shall receive time and one-half (1½) for all work performed on recognized holidays or days observed as such.

**NEWTON COUNTY
HOLIDAY SCHEDULE – HEAVY CONSTRUCTION**

NO. 3: 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 to 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 time & one-half (1½) the regular rate of pay for such work.

NO. 15: The following days are recognized as holidays: New Year's Day, Memorial Day, July Fourth, 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. If workmen are required to work the above enumerated holidays or days observed as such, they shall receive time and one-half (1½) the regular rate of pay for such work. Where one of the holidays specified falls or is observed during the workweek, then all work performed over and above thirty-two (32) hours in that week shall be paid at the rate of time and one-half (1½). Workmen shall receive time and one-half (1 ½) for all work performed on Sundays. Double (2) time shall be paid for work on Sunday or recognized holidays when and only if any other craft employees of the same employer at work on that same job site are receiving double (2) time for that Sunday or 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. 18: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day shall be paid at the time and one-half (1½) rate of pay. 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 a forty (40) hour week; however no reimbursement for this eight (8) hours is to be paid to the working person(s) unless the holiday is worked.

OUTSIDE ELECTRICIAN

These rates are to be used for the following counties:

Andrew, Atchison, Barry, Barton, Buchanan, Caldwell, Cedar, Christian, Clinton, Dade, Dallas, Daviess, DeKalb, Douglas, Gentry, Greene, Grundy, Harrison, Hickory, Holt, Jasper, Laclede, Lawrence, Livingston, McDonald, Mercer, Newton, Nodaway, Ozark, Polk, St. Clair, Stone, Taney, Vernon, Webster, Worth, and Wright

COMMERCIAL WORK

Occupational Title	Basic Hourly Rate	Total Fringe Benefits
Journeyman Lineman	\$36.02	\$4.75 + 34%
Lineman Operator	\$34.10	\$4.75 + 34%
Groundman	\$23.28	\$4.75 + 34%

UTILITY WORK

Occupational Title	Basic Hourly Rate	Total Fringe Benefits
Journeyman Lineman	\$34.96	\$4.75 + 34%
Lineman Operator	\$32.31	\$4.75 + 34%
Groundman	\$22.53	\$4.75 + 34%

OVERTIME RATE: Eight (8) hours of work between the hours of 8:00 a.m. and 4:30 p.m. shall constitute a work day. Forty (40) hours within the five (5) days, Monday through Friday inclusive, shall constitute the work week. Starting time may be adjusted not to exceed two (2) hours. Work performed outside of the aforementioned will be paid at the applicable overtime rate. When starting time has been adjusted, all other provisions concerning the work day shall be adjusted accordingly. The overtime rate of pay shall be one and one-half (1½) times the regular rate of wages, other than on Sundays, holidays and from Midnight until 6:00 a.m., which will be paid at double (2) the straight time rate.

HOLIDAY RATE: Work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day, or days celebrated as such, shall be paid at the double time rate of pay. If the holiday falls on Saturday, it will be observed on Friday; if the holiday falls on Sunday, it will be observed on Monday, and shall be paid for at double (2) the regular straight time rate of pay.