



MISSOURI
HIGHWAYS and TRANSPORTATION
COMMISSION
JEFFERSON CITY, MISSOURI
BID FORMS
AND
SPECIFICATIONS
FOR
CONSTRUCTING OR IMPROVING
SOUTHEAST DISTRICT
RADIO TOWER
ROMANCE, MISSOURI
IFB 9-111202

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"EXCESSIVE UNEMPLOYMENT IS IN EFFECT"

During times of high unemployment, state law permits the Department's Division of Labor Standards to declare that excessive unemployment is in effect, allowing only workers from certain states to work on the Missouri's public works projects. Public works projects are construction projects funded wholly or partially from public funds, or are projects that benefit the public such as but not limited to schools, parks, fire houses, and government buildings. The excessive unemployment law does not apply to projects funded in part by Federal Funds.

Restrictive states have laws in place restricting Missouri workers to work on their public works projects. Workers from these states are also not allowed to work on Missouri's public works projects.

Only Missouri laborers and laborers from nonrestrictive states are allowed by law to be employed on Missouri's public works projects when the unemployment rate exceeds **5 percent** for two consecutive months. (See Sections 290.550 through 290.580 RSMo). To file a complaint against a contractor for employing a worker from one of the restrictive states below on a Missouri public works project, submit the **complaint form** online for the Division to investigate.

Restrictive states- workers from these states are **NOT** allowed to be employed on Missouri public works projects: Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Idaho, Illinois, Maine, Massachusetts, Mississippi, Montana, Nevada, New Jersey, North Dakota, South Dakota, and the U.S. Virgin Islands, West Virginia and Wyoming.

Non-Restrictive States- workers from these states are allowed to be employed on Missouri public works projects: Alabama, Arkansas, Georgia, Hawaii, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Nebraska, New Hampshire, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington and Wisconsin.

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.

00020

INVITATION TO BID

Notice is given hereby that the Missouri Department of Transportation will accept bids for construction of the Romance Radio Tower near Romance, Missouri according to specifications and described in general as:

Demolish and dispose of existing radio tower and supply and install one (1) 110' freestanding tower with foundation, mounting hardware, waveguide ladder, safety climb device, and ice-bridge in accordance with the TIA/EIA-222-G, the national standard.

Sealed bids will be received by the Missouri Department of Transportation at its Central Office, 830 MoDOT Drive, P.O. Box 270, Jefferson City, MO 65102-0270 until 2:00 P.M., December 2, 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/>.

Prevailing wages as established by the Missouri Department of Labor and Industrial Relations, for Ozark County, as shown herein will apply.

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: NEAR ROUTE Y, ROMANCE, MISSOURI

A PRE-BID CONFERENCE AND SITE SURVEY IS SCHEDULED FOR NOVEMBER 22, 2011 AT THE MODOT REGIONAL MAINTENANCE BUILDING, ROUTE MM, 500' WEST OF ROUTE 5, GAINESVILLE, MISSOURI AT 10:00 AM.

BIDDER REQUIREMENTS

1. SCOPE OF WORK

Demolish and dispose of existing radio tower and supply and install one (1) 110' freestanding tower with foundation, mounting hardware, waveguide ladder, safety climb device, and ice-bridge in accordance with the TIA/EIA-222-G, the national standard.

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 successful bidder understands that this project involves state funds and the successful bidder awarded the contract will be required to comply with the Executive Order 05-30 of the Governor of the State of Missouri dated September 8, 2005. This order stipulates that there shall be no discriminatory employment practices by the Contractor or his subcontractors, if any, based on race, sex, religion, national origin, age, color, disability, or veteran status. The undersigned Contractor or his subcontractors, if any, shall give written notice of their commitments under this clause to any labor union with which they have bargaining or other agreements.
- B. 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.
- C. 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.
- D. 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 which ever 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 40-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 three-hundred dollars (\$300.00) 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. "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."
- B. 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.
- C. 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/files/programs/gc_1185221678150.shtm.

20. PERFORMANCE

- A. In the evaluation of bids/quotes, preferences shall be applied in accordance with 7 CSR 10-11.020(7). Contractors should apply the same preferences in selecting subcontractors. The attached document entitled "**VENDOR INFORMATION AND PREFERENCE CERTIFICATION FORM**" must be completed and returned with the solicitation documents.
- 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.

21. GENERAL PERFORMANCE

- A. 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.

- B. 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.

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.
- B. 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.
- C. 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 **Ozark County**. The Annual Wage Order #18 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 Contractor 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 Contractor's performance of its obligations under this Agreement.

30. DEFINITIONS

Architect/Engineer/Designer: When the term "Architect or Engineer or Designer" is used herein, it shall refer to Larry Carver, [Senior Facilities Designer], (573) 526-7934 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 Paul Huskey, [Facility Operations Supervisor] Southeast District, (573) 472-5216.

Owner: When the term "Owner" is used herein, it shall refer to Missouri Department of Transportation (MoDOT).

VENDOR INFORMATION & PREFERENCE CERTIFICATION FORM

Vendor Information

All bidders must furnish ALL applicable information requested below

| | |
|---|---|
| Vendor Name/Mailing Address: Email Address: | Vendor Contact Information (including area codes): Phone #: Cellular #: Fax #: |
| Printed Name of Responsible Officer or Employee: | Signature: |
| For Corporations - State in which incorporated: | For Others - State of domicile: |

If the address listed in the Vendor Name/Mailing Address block above is not located in the State of Missouri, list the address of Missouri offices or places of business:

*If additional space is required, please attach an additional sheet and identify it as **Addresses of Missouri Offices or Places of Business.***

M/WBE INFORMATION: List all certified Minority or Women Business Enterprises (**M/WBE**) utilized in the fulfillment of this bid. Include percentages for subcontractors and identify the M/WBE certifying agency:

| <u>M/WBE Name</u> | <u>Percentage of Contract</u> | <u>M/WBE Certifying Agency</u> |
|-------------------|-------------------------------|--------------------------------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |

*If additional space is required, please attach an additional sheet and identify it as **M/WBE Information***

Preference Certification

All bidders must furnish ALL applicable information requested below

GOODS/PRODUCTS MANUFACTURED OR PRODUCED IN USA: If any or all of the goods or products offered in the attached bid which the bidder proposes to supply to the MHTC are **not** manufactured or produced in the "United States", or imported in accordance with a qualifying treaty, law, agreement, or regulation, list below, by item or item number, the country other than the United States where each good or product is manufactured or produced.

| Item (or item number) | Location Where Item is Manufactured or Produced |
|-----------------------|---|
| | |
| | |
| | |

*If additional space is required, please attach an additional sheet and identify it as **Location Products are Manufactured or Produced.***

MISSOURI SERVICE-DISABLED VETERAN BUSINESS: Please complete the following if applicable. Additional information may be requested if preference is applicable. See below definitions for qualification criteria:

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.

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: **“9-111202 Southeast District Radio Tower - Romance”** 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 (\$_____).

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

Federal Tax I.D. Number

Telephone Number

Signature of Either Partner

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

PROVIDE SIGNATURE
IDENTICAL TO THAT
SHOWN ON THE BID FORM

BIDDER:

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.

02050

DEMOLITION

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

- A. The work to be done under these Specifications shall include all labor, materials, equipment and services necessary to complete all demolition of designated structures; complete removal of foundations and slab-on-grade, disconnecting utilities to demolished structures and removing utility lines as noted on Plot Plan.

PART 2 PRODUCTS

This Section not used.

PART 3 EXECUTION

3.1 PROTECTION OF EXISTING FACILITIES

- A. The contractor shall, as soon as he receives a Notice to Proceed with work, enter the premises and do any and all things necessary to protect the premises from damage by unauthorized persons. The contractor shall protect all existing equipment, pavements, tracks, poles, pipes, utilities, etc., which are not affected by demolition work. The contractor shall provide all shoring, bracing, tarps, temporary partitions, barricades, and/or other safety devices deemed necessary for protection.

3.2 OWNERSHIP OF PROPERTY

- A. No right, title property or interest of any kind whatsoever in or to the land or premises upon which such buildings or structures stand, is created, assigned, conveyed, granted, or transferred to the contractor, or any other person or persons, except only the right on entry to remove such buildings and structures in strict accordance with the Contract.
- B. Only such property may be salvaged by contractor as is owned by MoDOT, and in the event of any doubt respecting the ownership of any particular property, the contractor shall request from MoDOT a written statement respecting its ownership.
- C. All salvage becomes the property of the contractor, but storage of such materials and equipment of the project area will not be permitted except for the duration of the demolition contract.
- D. Personal property of third persons or of occupants of building on the site shall not become the property of the contractor.

3.3 DEMOLITION REQUIREMENTS

The work under this contract shall consist of the following:

- A. Demolition and removal of all structures on the site.
- B. Provide, erect, and maintain temporary barriers and security devices.
- C. Protect existing landscaping and/or paving that are not to be demolished.
- D. Disconnect cap and identify designated utilities. See Plot Plan for specific instructions.
 - 1. Seal storm and/or sanitary sewer lines leading from buildings being demolished at the foundation wall.
 - 2. When buildings are demolished on lots that are adjacent to rivers, drains, or wetlands, additional measures shall be taken to seal the sanitary sewer. The contractor shall excavate to the existing sewer service to designated location, installing a PVC cap on the street side of that sewer, and pumping a sand and cement grout into the wet side of the sewer service to provide a minimum 10-foot long plug, followed by backfilling with the excavated material.

3. The contractor will shut off power to the well after notification from MoDOT that the building or buildings have been vacated. The contractor will then remove the water line from the building back to the well and cap. The existing well may remain in place.
 4. Gas services shall be turned off at existing propane tank after notification from MoDOT that the building or buildings have been vacated. The contractor will disconnect the tank, store at a remote location on site, and remove concrete pad and gas line to the building as part of the demolition. If tank is more than 5% full lift, with slings, per NFPA 58 – LP Gas Code.
 5. Disconnect electric wires as per rules and regulations of authorities having jurisdiction. Notification of termination of electric service shall be made to the power company. The power company will remove meters, poles, overhead wires, and transformers at no cost to the contractor.
 6. Disconnect telephone wires as per rules and regulations of authorities having jurisdiction. Notification of termination of telephone service will be made to the telephone company. The telephone company will remove poles and overhead wires, at no cost to the contractor. Any equipment or wires left by the Telephone Company within the building will be intentional on their part and will be up to the contractor to remove.
 7. The contractor shall arrange removal of any other wires.
 8. Maintain and preserve utilities traversing premises as long as same are required.
- E. Demolish structures indicated in an orderly and careful manner.
 - F. Remove foundations to a minimum four feet below finished grade.
 - G. Removal of all other walls, partition walls, columns, piers, beams, or other projections, and all footings to a level four feet below finished grade.
 - B. Remove and dispose of all foundation walls, partition walls, columns, piers, beams, and concrete slab on grade.
 - H. All open areas shall be filled. Where excavations or open areas are not backfilled within 24 hours, the contractor will be required to encircle the open area by a standard snow fence, or equal.
 - I. Perform all other incidental work necessary to fully complete the contract.
 - J. Walls over ten feet high of any width or length shall not remain standing after working hours unless adequate lateral support is provided.
 - K. Backfill open pits and holes caused as a result of demolition. Use backfill as described in section 02220.
 - L. Rough grade and compact areas affected by demolition to maintain site grades and contours.
 - M. All rubbish, non-reusable fill, debris, equipment, etc., resulting from demolition work shall be removed from the premises during and-or upon completion of work, leaving the site area acceptable to the satisfaction of the owner.
 - N. The contractor shall furnish the disposal site for all demolition materials.
 - O. The contractor shall take whatever steps necessary to control dust during demolition and removal. The contractor will monitor the haul road for debris.

END OF SECTION

02100

SITE PREPARATION

PART 1 SCOPE

- A. The contractor shall visit the site and carefully examine the conditions of the premises to determine the amount of work and materials required for the work necessary to prepare the site in every respect for the construction of the parking lot, driveways, final grading, as shown on the plans.
- B. The contractor shall be responsible for determining the quantities of materials to be excavated and handled and for the amount of backfilling, filling and grading to be done in order to perform all work required on the plans.
- C. Included in the site grading is final seeding and mulching.

PART 2 SEEDING AND MULCHING

- A. An area 50' wide surrounding the new building and parking lot shall be seeded and mulched.
- B. Fertilizing:
 - 1. Soil Neutralization: Shall be at the rate of 1000 pounds of effective neutralization per acre as per Specification Section 801.2.2 of the Missouri Standard Specifications for Highway Construction.
 - 2. Commercial Fertilizer: In accordance with Specification Section 801.2.3 of the Missouri Standard Specifications for Highway Construction, fertilizers shall be applied at the following rates:

| | | |
|-----|-----------------|------------------|
| (a) | Nitrogen | 80 lb. per acre |
| (b) | Phosphoric Acid | 240 lb. per acre |
| (c) | Potash | 80 lb. per acre |
- C. Seeding: Seed shall be Champion 3 + 3 Fescue Blend as sold by Mangelsdorf Seed Company, or equivalent as approved by the owner. The seed shall be applied at a rate of 400 lb. per acre.
- D. Mulching: The mulch shall be Type 1 mulch as per Specification Section 802 of the Missouri Standard Specifications for Highway Construction

END OF SECTION

CHAIN LINK FENCES

PART 1 GENERAL

1.1 SUMMARY

- A. Provide chain link fence system where shown on the Drawings, as specified herein and as needed for a complete and proper installation.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions and Sections in Division 1 of these Specifications.

1.2 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Product data: Within 35 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements;
 - 3. Shop Drawings in sufficient detail to show fabrication, installation, anchorage and interface of the work of this Section with the work of adjacent trades;
 - 4. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.

1.3 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Comply with pertinent provisions of Section 01620.

PART 2 PRODUCTS

2.1 DIMENSIONAL DATA

- A. General:
 - 1. Pipe sizes indicated are commercial pipe sizes.
 - 2. Tube sizes indicated are nominal outside dimensions.
 - 3. H-section sizes indicated are normal flange dimensions.
 - 4. Roll-formed section sizes indicated are the nominal outside dimensions.

2.2 GALVANIZING

- A. On steel framework and appurtenances, provide galvanized finish with not less than the following weight of zinc per sq ft.
 - 1. Pipe: 1.8 oz, complying with ASTM A120.
 - 2. H-sections and square tubing: 2.0 oz, complying with ASTM A123.

3. Hardware and accessories: Comply with Table I of ASTM A153.
4. Fabric: 2.0 oz, complying with class II of ASTM A121.

2.3 FABRIC

- A. Provide number 9 gauge or 0.148" wires in 2" mesh, with top and bottom selvages twisted and barbed.
- B. Provide fabric in one-piece widths.

2.4 POSTS, RAILS AND ASSOCIATED ITEMS

- A. End, corner, slope and pull posts: Provide at least the following minimum sizes and weights:

| | |
|--|--------------------|
| Material and dimensions: | Lbs per linear ft: |
| Pipe, 2.875" O.D. | 5.79 |
| Tubing, 2-1/2" square: | 5.70 |
| Roll-formed section, 3-1/2" x 3-1/2": | 5.14 |

- B. Line posts: Provide minimum sizes and weights as follow:

| | |
|---------------------------------|--------------------|
| Material and dimensions: | Lbs per linear ft: |
| Pipe, 2.375" O.D. | 3.65 |
| H-section, 2.25" x 1.95 x 0.143 | 1.95 |

- C. Gate posts: Provide gateposts for supporting single gate leaf or one leaf of a double gate installation, for nominal gate widths as follows:

| | |
|-----------------------------|--------------------|
| Materials and dimension: | Lbs per linear ft: |
| Pipe, 4" outside dimension: | 9.10 |
| Tubing, 3" square: | 9.10 |
| H-section, 4": | 14.00 |

 1. Over 13 feet wide, and up to 18 feet wide: Use 6.625" outside diameter pipe weighing 14.0 lbs per linear ft.
 2. Over 18 feet wide: Use 8.625" outside diameter pipe weighing 24.70 lbs per linear ft.

- D. Top rails:
 1. Use 1.660" outside diameter pipe weighing 1.80 lbs per linear ft; or
 2. Use 1.625" x 1.25" roll-formed sections weighing 1.35 lbs per linear ft.
 3. Provide in manufacturer's longest lengths, with expansion type couplings approximately 6" long for each joint.
 4. Provide means for attaching top rail securely to each gate, corner, pull, slope and end post.

- E. Post brace assemblies:
 1. Provide at end and gate posts, and at both sides of corner, slope and pull posts, with the horizontal brace located at mid-height of the fabric.
 2. Use 1.660" outside diameter pipe weighing 1.80 lbs per linear ft for horizontal brace.
 3. Use 3/8" diameter rod with turnbuckle for diagonal truss.

- F. Tension wire:
 1. Provide number 7 gauge galvanized coiled spring wire at bottom of fabric.

- G. Post tops:
 1. Provide steel, wrought iron or malleable iron, designed as weather tight closure cap.
 2. Provide one cap for each post.
 3. Provide caps with openings to permit through passage of top rail.

- H. Stretcher bars:
 1. Provide one-piece lengths equal to full height of fabric, with a minimum cross-section of 3/16" x 3/4".
 2. Provide one stretcher bar for each gate and end post and two for each corner, slope and pull post, except where fabric is woven integrally into the post.
- I. Stretcher bar bands:
 1. Provide steel, wrought iron, or malleable iron, spaced not over 15" on centers, to secure stretcher bars to end, corner, pull, slope and gate posts.
 2. Bands may be used also with special fittings for securing rails to end, corner, pull, slope and gate posts.

2.5 GATES

- A. General:
 1. Fabricate gate perimeter frames of tubular members.
 2. Provide additional horizontal and vertical members to assure proper operation of the gate, and for attachment of fabric, hardware and accessories.
 3. Space so frame members are not more than 8 feet apart.
 4. Fabricate gate frames from:

| Material and dimensions: | Lbs per linear ft: |
|------------------------------|--------------------|
| Pipe 1.90" outside diameter: | 2.72 |
| Tubing, 2" square: | 2.60 |
- B. Fabrication:
 1. Assemble gate frames by welding with special malleable or pressed steel fittings and rivets for rigid connections.
 2. Use same fabric as used in the fence.
 3. Install fabric with stretcher bars at vertical edges as a minimum.
 4. Attach hardware with rivets or by other means that will provide security against removal and breakage.
 5. Attach hardware with rivets or by other means that will provide security against removal and breakage.
- C. Gates:
 1. Swing Gates: Swing gates shall comply with the requirements of ASTM F 900. Provide the following for one 5' gate:
 - a. Hinges:
 - (1). Pressed or forged steel, or malleable iron, to suit the gate size: non-lift-off type, offset to permit 180 degree opening.
 - (2). Provide 1-1/2 pr of hinges for each leaf over 6 feet in nominal height.
 - b. Latches:
 - (1). Provide forked type or plunger-bar type to permit operation from either side of the gate.
 - (2). Provide padlock eye as integral part of latch.
 - c. Keeper:
 - (1). Provide keeper for vehicle gates, which automatically engages the gate leaf and holds it in the open position until manually released.
 2. Sliding Gates: Sliding gates shall conform to the requirements of ASTM F 1184.
 - a. Cantilever Slide Gates: Provide manufacturer's standard top rail incorporating track for top roller guideposts to keep gate on rollers. External rollers shall have ungreased fittings; internal rollers shall have sealed lubricant ball bearings. Gates shall be manufactured to prevent sagging. Fabric shall be the same size and finish as the fence and shall be applied to the entire gate. Provide a lockable positive latch and other hardware and accessories as required. Provide 16' gate.

2.6 MISCELLANEOUS MATERIALS AND ACCESSORIES

- A. Wire ties:
 - 1. For tying fabric to line posts, use number 9-gauge wire ties spaced 12" on centers.
 - 2. For tying fabric to rails and braces, use number 9-gauge wire ties spaced 24" on centers.
 - 3. For tying fabric to tension wire, use number 11 gage hog rings spaced 24" on centers.
 - 4. Manufacturer's standard wire ties will be acceptable if of equal strength and durability.
- B. Concrete: Comply with provisions of Section 03300 for 2500 psi concrete.

PART 3 EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. General:
 - 1. Install posts at a maximum spacing of 10 feet on centers.
 - 2. Install corner or slope posts where changes in line or grade exceed a 30-degree deflection.
- B. Excavating:
 - 1. Drill holes for post footings in firm, undisturbed or compacted soil, strictly adhering to the dimensions and spacing shown.
 - 2. Post hole dimensions:
 - a. Provide 30" deep by 8" diameter foundations for line posts for 5-foot fabric height and less.
 - b. Provide 36" deep by 8" diameter foundations for line posts for fabric heights exceeding 5 feet.
 - c. Provide 36" deep by 12" diameter foundations for all other posts.
 - 3. Spread soil from excavations uniformly adjacent to the fence line or on adjacent areas of the site if so directed.
 - 4. When solid rock is encountered near the surface, drill into rock at least 12" for line posts and at least 18" for end, pull, gate and corner posts. Drill hole at least 1" greater diameter than the largest dimension of the post to be placed.
 - 5. If solid rock is below soil overburden, drill to full depth required, except penetration into rock need not exceed minimum depths specified above.
- C. Setting posts:
 - 1. Remove loose and foreign materials from sides and bottoms of holes and moisten soil prior to placing concrete.
 - 2. Center and align posts in holes.
 - 3. Place concrete around posts in a continuous pour and vibrate or tamp for consolidation.
 - 4. Check each post for vertical and top alignment and hold in position during placement and finishing operations.
 - 5. Trowel tops of footings, and slope or dome to direct water away from posts.
 - 6. Extend footings for gateposts to the underside of bottom hinge.
 - 7. Set keeps, stops, sleeves and other accessories into concrete as required.
 - 8. Keep exposed concrete surfaces moist for at least seven days after placement, or cure with membrane curing material or other curing method approved by the Architect.
 - 9. Gout-in those posts that are set into sleeved holes, concrete constructions or rock excavations, using non-shrink Portland cement grout or other grouting material approved by the Architect.

- D. Concrete strength:
1. Allow concrete to attain at least 75% of its minimum 28-day strength before rails, tension wires and/or fabric is installed.
 2. Do not, in any case, install such items in less than seven days after placement of concrete.
 3. Do not stretch and tension fabric and wire and do not hang gates, until concrete has attained its full design strength.
- E. Rails and bracing:
1. Install fence with a top rail and bottom tension wire.
 2. Install top rails continuously through post caps or extension arms, bending to radius for curved runs.
 3. Provide expansion couplings as recommended by the fencing manufacturer.
 4. Provide bracing to the midpoint of the nearest line post or posts at all end, corner, slope, pull and gate posts.
 5. Install tension wires parallel to the line of fabric by weaving through the fabric and tying to each post with not less than number 6 gage galvanized wire or by securing the wire to the fabric.
- F. Installing fabric:
1. Leave approximately 2" between finish grade and bottom selvage.
 2. Excavate high points in the ground to clear the bottom of the fence.
 3. Place and compact fill to within 1" of the bottom of the fabric in depressions.
 4. Pull fabric taut and tie to posts, rails, and tension wires.
 5. Install fabric on outward side facing side of fence, and anchor to framework so that the fabric remains in tension after pulling force is removed.
 6. Install stretcher bars by threading through or clamping to fabric on 4" centers and secure to posts with metal bands spaced 15" on centers.
- G. Installing gates:
1. Install gates plumb, level and secure for full opening without interference.
 2. Install ground-set items in concrete for anchorage in accordance with the fence Manufacturer's recommendations as approved by the Architect.
 3. Lubricate and adjust the hardware for smooth operation.
- H. Miscellaneous:
1. Use U-shaped tie wires, conforming to diameter of pipe to which attached, clasping pipe and fabric firmly with ends twisted at least two full turns.
 2. Bend ends of wire to minimize hazards to persons and clothing.
 3. Fasteners:
 - a. Install nuts for tension band and hardware bolts on side of fence opposite fabric side.
 - b. Peen the ends of bolts to prevent removal of nuts.
 1. Repair coatings damaged in the shop or field erection, using a hot-applied repair compound applied in accordance with its manufacturer's recommendations as approved by the Architect.

END OF SECTION

03100

CONCRETE FORMWORK

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Formwork for cast-in place concrete, with shoring, bracing and anchorage.
- B. Openings for other work.
- C. Form accessories.
- D. Form stripping.

1.2 PRODUCTS INSTALLED BUT NOT FURNISHED UNDER THIS SECTION

- A. Section 03200 - Concrete Reinforcement
- B. Section 03300 - Cast-in-Place Concrete: Supply of concrete accessories for placement by this section.
- C. Section 05500 - Metal Fabrications: Supply of metal fabrications for placement by this section.

1.3 RELATED SECTIONS

- A. Section 03200 - Concrete Reinforcement.
- B. Section 03300 - Cast-in-Place Concrete.

1.4 REFERENCES

- A. ACI 301 - Structural Concrete for Buildings.
- B. ACI 318 - Building Code Requirements for Reinforced Concrete.
- C. ACI 347 - Recommended Practice For Concrete Formwork.
- D. PS 1 - Construction and Industrial Plywood.

1.5 DESIGN REQUIREMENTS

- A. Design, engineer and construct formwork, shoring and bracing to conform to design and code requirements; concrete to conform to required shape, line and dimension.

1.6 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide data on void form materials and installation requirements.

1.7 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 347.

1.8 REGULATORY REQUIREMENTS

- A. Conform to applicable code for design, fabrication, erection and removal of formwork.

1.9 FIELD SAMPLES

- A. Provide under provisions of Section 01400. Coordinate with requirements stated in Section 03100 and 03300.

1.10 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Section 01600.
- B. Deliver void forms and installation instructions in manufacturer's packaging.
- C. Store off ground in ventilated and protected manner to prevent deterioration from moisture.

1.11 COORDINATION

- A. Coordinate work under provisions of Section 01039.
- B. Coordinate this Section with other Sections of work that require attachment of components to formwork.
- C. If formwork is placed after reinforcement resulting in insufficient concrete cover over reinforcement before proceeding, request instructions from Architect/Engineer.

PART 2 PRODUCTS

2.1 WOOD FORM MATERIALS

- A. Plywood: Douglas Fir species; grade B/B plyform class 1 or 2; sound undamaged sheets with clean, true edges.
- B. Lumber: Douglas Fir species; standard grade; with grade stamp clearly visible.

2.2 PREFABRICATED FORMS

- A. Preformed Steel Forms: Minimum 16 gage matched, tight fitting, stiffened to support weight of concrete without deflection detrimental to tolerances and appearance of finished surfaces.
- B. Pan Type: Steel of size and profile required.
- C. Tubular Column Type: Round, spirally wound laminated fiber material, surface treated with release agent, non-reusable, of sizes required.
- D. Void Forms: Moisture resistant treated paper faces, biodegradable, structurally sufficient to support weight of wet concrete mix until initial set; 2 inches thick.

2.3 FORMWORK ACCESSORIES

- A. Form Ties: Snap-off type, galvanized metal, fixed length, cone type, with waterproofing washer, free of defects that could leave holes larger than 1 inch in concrete surface.
- B. Form Release Agent: Colorless mineral oil which will not stain concrete, or absorb moisture, or impair natural bonding or color characteristics of coating intended for use on concrete.
- C. Dovetail Anchor Slot: Galvanized steel, 22 gauge thick, foam filled, release tape sealed slots, anchors for securing to concrete formwork.
- D. Flashing Reglets: Galvanized steel, 22 gage thick, longest possible lengths, with alignment splines for joints, foam filled, release tape sealed slots, anchors for securing to concrete formwork.
- E. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Sized as required, of sufficient strength and character to maintain formwork in place while placing concrete.
- F. Waterstops: Rubber, minimum 1,750 p.s.i tensile strength, minimum 50 degrees F to plus 175 degrees F working temperature range, wide, maximum possible lengths, ribbed profile, preformed corner sections, heat welded jointing.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify lines, levels and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

3.2 EARTH FORMS

- A. Earth forms are not permitted except for spread and column footings, which are to be square and free of debris.

3.3 ERECTION - FORMWORK

- A. Erect formwork, shoring and bracing to achieve design requirements, in accordance with ACI 301.
- B. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to over stressing by construction loads.
- C. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Permit removal of remaining principal shores.
- D. Align joints and make watertight. Keep form joints to a minimum.
- E. Obtain approval before framing openings in structural members that are not indicated on Drawings.
- F. Install void forms in accordance with manufacturer's recommendations. Protect forms from moisture or crushing.

3.4 APPLICATION - FORM RELEASE AGENT

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations.
- B. Apply prior to placement of reinforcing steel, anchoring devices and embedded items.
- C. Do not apply form release agent where concrete surfaces will receive special finishes or applied coverings that are affected by agent. Soak inside surfaces of untreated forms with clean water. Keep surfaces coated prior to placement of concrete.

3.5 INSERTS, EMBEDDED PARTS, AND OPENINGS

- A. Provide formed openings where required for items to be embedded in passing through concrete work.
- B. Locate and set in place items which will be cast directly into concrete.
- C. Coordinate with work of other sections in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts and components of other Work.
- D. Install accessories in accordance with manufacturer's instructions, straight, level and plumb. Ensure items are not disturbed during concrete placement.
- E. Install water-stops continuous without displacing reinforcement. Heat seal joints watertight.
- F. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection. Locate openings at bottom of forms to allow flushing water to drain.
- G. Close temporary openings with tight fitting panels, flush with inside face of forms and neatly fitted so joints will not be apparent in exposed concrete surfaces.

3.6 FORM CLEANING

- A. Clean forms as erection proceeds, to remove foreign matter within forms.
- B. Clean formed cavities of debris prior to placing concrete.
- C. Flush with water or use compressed air to remove remaining foreign matter. Ensure that water and debris drain to exterior through clean-out ports.
- D. During cold weather, remove ice and snow from within forms. Do not use de-icing salts. Do not use water to clean out forms, unless formwork and concrete construction proceed within heated enclosure. Use compressed air or other means to remove foreign matter.

3.7 FORMWORK TOLERANCES

- A. Construct formwork to maintain tolerances required by ACI 301.

3.8 FIELD QUALITY CONTROL

- A. Inspect erected formwork, shoring, and bracing to ensure that work is in accordance with formwork design and that supports, fastenings, wedges, ties and items are secure.
- B. Do not reuse wood formwork more than 2 times for concrete surfaces to be exposed to view. Do not patch formwork.

3.9 FORM REMOVAL

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.
- B. Loosen forms carefully. Do not wedge pry bars, hammers or tools against finish concrete surfaces scheduled for exposure to view.
- C. Store removed forms in manner that surfaces to be in contact with fresh concrete will not be damaged. Discard damaged forms.

END OF SECTION

03200

CONCRETE REINFORCEMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Reinforcing steel bars, wire fabric and accessories for cast-in-place concrete.

1.2 RELATED SECTIONS

- A. Section 03100 - Concrete Formwork.
- B. Section 03300 - Cast-in-Place Concrete.

1.3 REFERENCES

- A. ACI 301 - Structural Concrete for Buildings.
- B. ACI 318 - Building Code Requirements For Reinforced Concrete.
- C. ACI SP-66 - American Concrete Institute - Detailing Manual.
- D. ACI 315-99 – Details and Detailing of Concrete Reinforcement
- E. ANSI/ASTM A82 - Cold Drawn Steel Wire for Concrete Reinforcement.
- F. ANSI/ASTM A184 - Fabricated Deformed Steel Bar Mats for Concrete Reinforcement.
- G. ANSI/ASTM A185 - Welded Steel Wire Fabric for Concrete Reinforcement.
- H. ANSI/AWS D1.4 - Structural Welding Code for Reinforcing Steel.
- I. ASTM A615 - Deformed and Plain Billet Steel Bars for Concrete Reinforcement.
- J. AWS D12.1 - Welding Reinforcement Steel, Metal Inserts and Connections in Reinforced Concrete Construction.
- K. CRSI - Concrete Reinforcing Steel Institute - Manual of Standard Practice.
- L. CRSI - Placing Reinforcing Bars.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with CRSI - Manual of Standard Practice & ACI 318.

1.5 COORDINATION

- A. Coordinate work under provisions of Section 01039.
- B. Coordinate with placement of formwork, formed openings and other Work.

PART 2 PRODUCTS

2.1 REINFORCEMENT

- A. Reinforcing Steel: ASTM A615, yield grade; deformed billet steel bars, unfinished.

- B. Reinforcing Steel Plain Bar and Rod Mats: ASTM A704, ASTM A615, Grade 60; steel bars or rods, unfinished.
- C. Stirrup Steel: ANSI/ASTM A82, unfinished.
- D. Welded Steel Wire Fabric: ASTM A815; in flat sheets.

2.2 ACCESSORY MATERIALS

- A. Tie Wire: Minimum gage annealed type.
- B. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement conditions including load bearing pad on bottom to prevent vapor barrier puncture.
- C. Special Chairs, Bolsters, Bar Supports, Spacers Adjacent to Weather Exposed Concrete Surfaces: Plastic coated steel; size and shape as required.

2.3 FABRICATION

- A. Fabricate concrete reinforcing in accordance with CRSI Manual of Practice ACI SP-66.

PART 3 EXECUTION

3.1 PLACEMENT

- A. Place, support and secure reinforcement against displacement. Do not deviate from required position.
- B. Do not displace or damage vapor barrier.
- C. Accommodate placement of formed openings.
- D. Conform to applicable code for concrete cover over reinforcement.

END OF SECTION

03300

CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Cast-In-Place Concrete floors, shear walls, foundation walls and supported slabs.
- B. Floors and slabs on grade.
- C. Control, expansion and contraction joint devices associated with concrete work, including joint sealants.
- D. Equipment pads, light pole base, flagpole base, thrust blocks and manholes.

1.2 PRODUCTS FURNISHED BUT NOT INSTALLED UNDER THIS SECTION

- A. Section 03100 - Concrete Formwork: Placement of joint device anchors in formwork.

1.3 RELATED SECTIONS

- A. Section 03100 - Concrete Formwork: Formwork and accessories.
- B. Section 03200 - Concrete Reinforcement.
- C. Section 03346 - Concrete Floor Finishing.
- D. Section 03370 - Concrete Curing.
- E. Section 07900 - Joint Sealers.

1.4 REFERENCES

- A. ACI 301 - Structural Concrete for Buildings.
- B. ACI 302 - Guide for Concrete Floor and Slab Construction.
- C. ACI 304 - Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete.
- D. ACI 305R - Hot Weather Concreting.
- E. ACI 306R - Cold Weather Concreting.
- F. ACI 318 - Building Code Requirements for Reinforced Concrete.
- G. ANSI/ASTM D994 - Preformed Expansion Joint Filler for Concrete (Bituminous Type).
- H. ANSI/ASTM D1190 - Concrete Joint Sealer, Hot-Poured Elastic Type.
- I. ANSI/ASTM D1751 - Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types).
- J. ANSI/ASTM D1752 - Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
- K. ASTM C33 - Concrete Aggregates.
- L. ASTM C94 - Ready-Mixed Concrete.
- M. ASTM C150 - Portland cement.

N. ASTM C260 - Air Entraining Admixtures for Concrete.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide data on joint devices, attachment accessories and admixtures.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301.

1.7 COORDINATION

- A. Coordinate work under provisions of Section 01039.
- B. Coordinate the placement of joint devices with erection of concrete formwork and placement of form accessories.

PART 2 PRODUCTS

2.1 CONCRETE MATERIALS

- A. Cement: ASTM C150, Type I - Normal, Type II - Moderate, Type V - Sulfate Resistant.
- B. Fine and Coarse Aggregates: ASTM C33.
- C. Water: Clean and not detrimental to concrete.

2.2 ADMIXTURES

- A. Air Entrainment: ASTM C260.

2.3 ACCESSORIES

- A. Bonding Agent: Polymer resin emulsion.
- B. Vapor Barrier: thick clear polyethylene film.
- C. Non-Shrink Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents; capable of developing minimum compressive strength of 2,400 psi in 48 hours and 7,000 psi in 28 days.

2.4 JOINT DEVICES AND FILLER MATERIALS

- A. Joint Filler Type A: ASTM D1751; ASTM D994; Asphalt impregnated fiberboard or felt, 1/2" thick; tongue and groove profile.
- B. Joint Filler Type B: ASTM D1752; Closed cell polyvinyl chloride foam, resiliency recovery of 95 percent if not compressed more than 50 percent of original thickness.
- C. Joint Filler Type C: ASTM D1752; Pre-molded sponge rubber fully compressible with recovery rate of minimum 95 percent.
- D. Expansion Joint Devices: ASTM B221 alloy, extruded aluminum; resilient filler strip with a Shore A hardness of 35 to permit plus or minus 25 percent joint movement with full recovery; extruded aluminum cover plate, of longest manufactured length at each location, flush Mounted, color as selected.
- E. Sealant: ASTM D1190; polymer based asphalt or coal tar and rubber compound.

2.5 CONCRETE MIX

- A. All concrete shall be, Type 1 cement with a compressive strength of 4,000 p.s.i. at 28 days.
- B. Mix concrete in accordance with ACI 304. Deliver concrete in accordance with ASTM C94.

- C. Use accelerating admixtures in cold weather only when approved by Architect/Engineer. Use of admixtures will not relax cold weather placement requirements.
- D. Use calcium chloride only when approved by Architect/Engineer.
- E. Use set retarding admixtures during hot weather only when approved by Architect/Engineer.
- F. Add air entraining agent to normal weight concrete mix for work exposed to exterior.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify site conditions under provisions of Section 01039.
- B. Verify requirements for concrete cover over reinforcement.
- C. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely and will not cause hardship in placing concrete.

3.2 PREPARATION

- A. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent in accordance with manufacturer's instructions.
- B. In locations where new concrete is dowelled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with non-shrink grout.

3.3 PLACING CONCRETE

- A. Place concrete in accordance with ACI 304 & ACI 301.
- B. Notify Architect/Engineer minimum 24 hours prior to commencement of operations.
- C. Ensure reinforcement, inserts, embedded parts, formed expansion and contraction joints are not disturbed during concrete placement.
- D. Separate slabs on grade from vertical surfaces with ½" thick joint filler.
- E. Place joint filler in floor slab pattern placement sequence. Set top to required elevations. Secure to resist movement by wet concrete.
- F. Extend joint filler from bottom of slab to within 1/2 inch of finished slab surface. Conform to Section 07900 for finish joint sealer requirements.
- G. Install joint devices in accordance with manufacturer's instructions.
- H. Install construction joint devices in coordination with floor slab pattern placement sequence. Set top to required elevations. Secure to resist movement by wet concrete.
- I. Install joint device anchors. Maintain correct position to allow joint cover to be flush with floor and wall finish.
- J. Install joint covers in longest practical length, when adjacent construction activity is complete.
- K. Apply sealants in joint devices in accordance with Section 07900.
- L. Place concrete continuously between predetermined expansion, control and construction joints.
- M. Do not interrupt successive placement; do not permit cold joints to occur.
- N. Place floor slabs in pattern indicated on drawings.

- O. Saw cut joints within 24 hours after placing. Use 3/16" thick blade, cut into 1/4 depth of slab thickness. If in-slab-heating is used cut joints 1/2 inch deep
 - P. Screed floors and slabs on grade level, maintaining surface flatness of maximum.
- 3.4 SEPARATE FLOOR TOPPINGS
- A. Prior to placing floor topping, roughen substrate concrete surface and remove deleterious material. Broom and vacuum clean.
 - B. Place required dividers, edge strips, reinforcing, and other items to be cast in.
 - C. Apply bonding agent to substrate in accordance with manufacturer's instructions.
- 3.5 CONCRETE FINISHING
- A. Provide formed concrete surfaces to be left exposed with smooth rubbed finish.
 - B. Finish concrete floor surfaces to requirements of Section 03346.
- 3.6 CURING AND PROTECTION
- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
 - B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
 - C. Cure concrete floor surfaces to requirements of Section 03370.
 - D. Cure floor surfaces in accordance with ACI 308.
- 3.7 FIELD QUALITY CONTROL
- A. Field inspection and testing will be performed in accordance with ACI 301 and under provisions of Section 01400.
 - B. Provide free access to Work and cooperate with appointed firm.
 - C. Submit proposed mix design to architect for review prior to commencement of Work.
 - D. Tests of cement and aggregates may be performed to ensure conformance with specified requirements.
 - E. Three concrete test cylinders will be taken for every 75 or less cu yards of concrete placed.
 - F. One additional test cylinder will be taken during cold weather concreting, cured on job site under same conditions as concrete it represents.
 - G. One slump test will be taken for each set of test cylinders taken.
- 3.8 PATCHING
- A. Allow Architect/Engineer to inspect concrete surfaces immediately upon removal of forms.
 - B. Excessive honeycomb or embedded debris in concrete is not acceptable. Notify Architect/Engineer upon discovery.
 - C. Patch imperfections as directed.
- 3.9 DEFECTIVE CONCRETE
- A. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.
 - B. Repair or replacement of defective concrete will be determined by the Architect/Engineer.
 - C. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect/Engineer for each individual area.

END OF SECTION

03370

CONCRETE CURING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Initial and final curing of horizontal and vertical concrete surfaces.

1.2 RELATED SECTIONS

- A. Section 03300 - Cast-In-Place Concrete.
- B. Section 03346 - Concrete Floor Finishing.

1.3 REFERENCES

- A. ACI 301 - Structural Concrete for Buildings.
- B. ACI 302 - Recommended Practice for Concrete Floor and Slab Construction.
- C. ACI 308 - Standard Practice for Curing Concrete.
- D. ASTM C309 - Liquid Membrane-Forming Compounds for Curing Concrete.
- E. ASTM D2103 - Polyethylene Film and Sheeting.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301 and ACI 302.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products under provisions of Section 01600.
- B. Deliver curing materials in manufacturer's packaging including application instructions.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Curing/sealing compound equal to Ashford Formula as distributed by:
Curecrete Chemical Company, Inc.
1201 W. Spring Creek Place
Springville, UT 84663
(801)489-5663

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify substrate conditions under provisions of Section 01039.
- B. Verify that substrate surfaces are ready to be cured.

3.2 EXECUTION - HORIZONTAL SURFACES

- A. Cure floor surfaces in accordance with ACI 308.

3.3 EXECUTION - VERTICAL SURFACES

- A. Cure surfaces in accordance with ACI 308.

3.4 PROTECTION OF FINISHED WORK

- A. Protect finished Work under provisions of Section 01500.
- B. Do not permit traffic over unprotected floor surface.

END OF SECTION

**SPECIFICATIONS
FOR
FURNISHING AND ERECTING GALVANIZED STEEL RADIO TOWER
ROMANCE, MISSOURI**

GENERAL SCOPE OF WORK:

1. Complete installation of one (1) 110' freestanding tower with foundation, antennas, mounting hardware, waveguide ladder, safety climb device, and ice-bridge, in accordance with national standard TIA/EIA-222-G. ***Tower installation will be completed after the demolition and removal of the existing fence, tower, and foundation.***
 - a. Demolish and dispose of existing fence, foundation, and 110' freestanding tower on site. Remove existing concrete to 1' below grade, and remove all other debris. Preferred disposal method is to recycle scrap material rather than dumping it in a landfill.
 - b. Furnish and erect one (1) 110' freestanding tower with waveguide ladder, safety climb device, ice-bridge, antennas/standoffs, and coax, as listed below.
 - c. New foundation/tower footprint for the proposed tower must fit into the existing footprint of the tower site.
 - d. Ice-bridge to building shall be constructed and installed in accordance with EIA/TIA-222G and grounded in accordance with Motorola grounding standard R 56.
 - e. Galvanized steel-constructed tower does not require primer and/or paint.
 - f. National Electrical Code NEC standards and requirements shall be complied with in all instances. Contractor shall complete wiring and make proper connections at the electrical control panel in the building. Contractor shall coordinate with the generator contractor in making these connections.
 - g. Antenna Tower Grounding Requirements: all connections shall be exothermically (cadwelded) connected. Tower and ice shield bridge grounding must meet all Motorola R-56 Standards.
 - h. Contractor-supplied equipment shall be new and the manufacturer's latest current model. Suppliers of these towers and equipment shall furnish evidence they have regularly engaged in the manufacturing of this equipment. All equipment, material, labor, and installation shall comply with or exceed F.A.A. and F.C.C. requirements.
 - i. Supply and install: Two (2) each Andrews Solutions DB224 with Andrew Solutions recommended standoffs along with Andrews 7/8" hard-line (LDF5-50A) coax and the appropriate ends. There shall be no substitute for the Andrew Solutions brand antennas, standoffs, coax or ends. The first DB 224 shall be side mounted at the top of the tower with the DB224 antenna height not to exceed 110. The second DB 224 shall be side mounted at 80 feet with the antenna height not to exceed 100 feet. The Missouri State

Highway Patrol (MSHP) maintains 2 antenna systems on this tower. These antennas and coax will be removed and reinstalled by the MHSP or its representative. While these systems will not be removed or replaced by the contractor, they shall be taken into consideration when designing the load for this tower. See Section on Loading.

2. TOWER LOCATION: MoDOT, Southeast District, End Fire Tower Rd., 3.6 mi E of Jct. RTE 5 & J, ROMANCE, OZARK COUNTY, MISSOURI 36-43-27 N, 092-27-28 W
3. TYPES OF TOWER: The tower shall be triangular in cross section. The tower shall also be of a rigid-frame construction, consisting of solid or tubular vertical members. Vertical members shall be braced with suitable horizontal and diagonal members of solid, tubular or angular cross section. Towers may be fabricated in sections of 10' or 20' (+/-) lengths.

PLANS, DRAWING, AND, STRESS CALCULATIONS: The contractor shall furnish complete drawings as called for in these specifications as follows:

1. Plans: The Contractor shall submit for approval, complete plans drawn to a legible scale from which he must install the tower foundations. The State shall furnish a plot plan for each and every location. The Contractor shall furnish large-scale details of each foundation which shall show dimensions, reinforcing, anchor bolts, etc. Engineered-stamped drawings, showing the type of construction and the size and weight of members for the tower, shall be submitted by the contractor.
2. Shop Drawings: Shop drawings shall be submitted, which must show overall dimensions, sections, size and relative location of each member, side and top mount antenna supports, ladder details, coaxial cable strap details, location of aircraft warning lights, power wiring, conduit, and details of connections to towers, obstruction marking painting, detail of base plates and connection between tower sections, and any and all other necessary details as required.
3. Tower Analysis: Plans shall be supplemental with a stress analysis of the tower for design winds as specified later herein, showing design loads, shears, moments and axial forces resisted by all members and their connections. This analysis must be sealed by a Professional Engineer (PE)

LOADING:

1. Towers, antennas, antenna and coax mounting hardware shall be designed to withstand an indicated wind loading of 120 MPH with no ice and 95 MPH with ½ radial ice load. In addition, the MSHP will be installing on this tower 1 UHF Yagi, DB436, at 66" with 7/8" coax and a 2 bay LVHF receive antenna, DB212, with the first bay at 78' and the second bay at 106' with both bays being fed by 7/8" coax. In addition to the contractor supplied antennas and coax, and the needs of MSHP, the contractor shall design the tower to accommodate the future needs of one 3 foot flat panel antenna with 7/8" coax at 80 feet and an additional DB 224 with 7/8" coax at 80 feet. These additional antennas and coax are not to be installed at this time, but the tower has to be designed and built with these future needs in mind.

2. The total load specified above shall be applied to the structure in the directions which will cause the maximum stress in the various members.

ALLOWABLE UNIT STRESSES:

1. **Structural Steel:** All parts of the tower structure made of structural steel shall be designed in accordance with "Section C, Unit Stresses", E.I.A. Standard Code for Radio Transmitting antennas and Supporting Towers for Radio Transmitting antennas, RS-222, and the A.I.S.C. Specifications for design of structural steel.
2. **Foundation:** The tower foundation shall be designed for the actual tower loading specified in this document and actual soil conditions. In no case shall tower foundations be less than 2' 0" x 2' 0" x 5' 0" in size, with nominal 1' 0" above the ground line.
3. **Other Materials:** Allowable unit stresses for structural materials other than structural steel shall be subject to approval by the Engineer. For a particular material, the ultimate strength, yield strength, modulus of elasticity and proposed working stress shall be tabulated and submitted to the Engineer for approval.

MATERIALS:

1. **Structural Steel:** Structural steel shall conform to ASTM Standard Specifications for "Steel for Bridges and Buildings".
2. **Concrete:** All concrete shall have a minimum compressive strength at twenty-eight (28) days of 4000 pounds per square inch. All material shall conform to state requirements, as set forth in the latest revision of the Missouri Standard Specifications for Highway Construction.
3. **Reinforcing Steel:** All reinforcing steel shall conform to TIA/EIA-222 standards for steel antenna towers and antenna supporting structures for all classes of communications service.
4. **Bolts:** Tower bolts, nuts, and anchor bolts shall conform to the ASTM Tentative Specification for "Galvanized Steel Transmission Tower Bolts".
5. **Welding:** All welding shall conform to the requirements of the specifications of the American Welding Society.
6. **Tower Accessories:** All required accessories; including, but not limited to, antenna brackets, antenna standoff stupors, coax and cable supports, anti-climb panels, etc. shall be designed for the towers structure provided and as specified by the tower structure manufacturer.

FINISH:

1. **Shop Finish:** Towers, bolts, anchor rods, and other attachments and brackets made of iron or steel shall be furnished with a protective finish of zinc, as specified below. Galvanizing of structural steel shall be done after fabrication, in accordance with the provisions of A.S.T.M. Serial Designation A123, "Zinc (Hot Galvanized). Coating on Products Fabricated from Rolled, Pressed and Forged Steel Shapes, Plates, Bar and Strips", an amended to date.

Galvanizing of steel hardware, other than tower bolts, shall conform to A.S.T.M. Serial Designation A153 as amended to date. Where applicable, the provisions of A.S.T.M. Serial Designation A385 and A386, as amended to date, shall be followed.

FABRICATION:

1. Workmanship: All workmanship shall be equal to the best practice in modern structural shops.
2. Straightening: All materials shall be straight and clean. If straightening or flattening is necessary, it shall be done by a process and in a manner that will not injure the material. Sharp kinks or bends shall be cause for rejection.
3. Welding: Parts to be fillet welded shall be brought in as close contact as practical. Welds of joints at contract surfaces shall be complete or 100% welds to avoid pockets which galvanizing material must not fill. The technique of welding employed, the appearance and quality of welds made, and the methods used in correcting defective work shall conform to the "Code of Arc and Gas Welding in Building Construction" of the American Welding Society, Section 4, Workmanship.

FOUNDATIONS:

1. Standard Foundations: Shall be designed for a soil bearing pressure of 4000 pounds per square inch under the specified loading. In uplift, the tower foundations shall be designed to resist 100% more than the specified uplift loading. A soil analysis of the tower site is included in the attachments.
2. In no case shall the tower foundations be less than 2' -0" x 2' -0" x 5' -0" in size, with approximately 1' -0" above the ground line.
3. Excavation, Grading, Etc: The work covered by this section includes the furnishing of forms, all material, labor and equipment and the performing of all operations in connection with the installation of tower base foundations. All trees, vegetation, roots brush, grass sod, decayed matter, rubbish, etc. shall be removed from the area and disposed of by the tower contractor. All excavation waste shall be disposed of by the tower contractor per page 1, paragraph a. The Contractor shall submit the drawings and the design calculations for the tower foundations to MoDOT.

ANTENNAS: The contractor shall furnish all antennas, side arms brackets, coaxial transmission lines, clamps, fittings, and all other necessary accessories. It shall be the responsibility of the contractor to assemble the above and to also furnish a detailed equipment list for each location and instructions for proper installation by the tower contractor. **Additionally**, it shall be the duty and responsibility of the tower contractor to properly install all antennas, coaxial cable and etc. as called for in these specifications and as shown on the plans. All transmission lines connectors shall be completely covered with a heavy coat of liquid neoprene upon installation. It shall also be the responsibility of the tower contractor to assist the radio contractor in testing the transmission lines and antennas. Any shorts and etc. discovered in the transmission lines,

antennas or accessories shall be corrected by the tower company, in conjunction with the radio technician.

Supply and install antennas. All transmission feed lines shall be Andrew Heliac® 7/8" rigid coax which must be connected with Andrew® end connectors (Part # LDF5-50) designed for LDF series cable. There shall be no substitute for the Andrew® brand feed line and connectors.

It shall be the responsibility of the tower contractor to route the transmission line through the proper conduit from the tower to inside the building, leaving a sufficient extra length coiled in a neat package to make the necessary connections to the transmitter. The tower contractor is not required to make the final connections to the transmitter; this shall be the responsibility of the radio contractor.

PROTECTIVE GROUNDING: All towers shall be effectively grounded. Exact arrangement shall be as conditions require in accordance with Motorola R56 ground ring around the tower and dictates how the site grounding is to be installed.

Since connection of copper to steel will produce a cathodic reaction in the presence of moisture, such connections shall be painted using an electrically-conducting, corrosion-resistant paint, such as "Galvanox", manufactured by Subox, Inc., or approved equal. Any and all equipment mounted on a tower mast shall be so fastened that it is effectively grounded. On structures provided with obstruction lights, the power service to the obstruction lights shall be protected with lighting arrestors. Where power to tower lights is run underground, lighting protection shall be provided where electric service enters building. The grounding shall be installed in a fashion that meets the requirements of the Motorola R56 grounding ring. All the fencing, tower and the concrete reinforcing bars shall be exothermically welded to the ring. The contractor shall provide a grounding lug into the building to be used for equipment grounding. The grounding lug shall be exothermically welded to the grounding ring. The exact positioning of the grounding lug will be determined during construction.

CONDUIT: Rigid metallic conduit shall be furnished and installed, as shown on the plans, for the tower base, and in accordance with the rules of the National Electrical Code. The tower contractor is to make final connections of conduit between the tower base and building foundation. Conduit shall be of the size as shown on the plans.

FENCING: The contractor shall furnish and erect galvanized steel fencing: Minimum 6' chain link with a minimum of 2-strands of barbed wire topping; Fenced area shall allow for an 8' clearance from the base of the tower; 12' gate entrance with two 6' gate sections; and fenced area must have weed barrier and 4 inches of crushed limestone. MoDOT Fence Specification Section 02830 shall be used to evaluate and accept or reject proposals.

WORKING TIMES: A total of 40 working days shall be allowed for completion of the contract. Time shall start as of the date of notification by the Department.

EXTRA WORK: Claims for extra work not authorized in writing by the Department of Transportation or its representatives, prior to the performance of work, shall be rejected.

TEMPORARY LIGHTING: The contractor shall provide at his own expense all current for temporary lighting that may be required during the construction and completion of the work.

CLEANING: Contractors shall not allow waste material or rubbish, caused by their employees, to accumulate in or about the premises, but shall promptly remove same. At the completion of the work, they shall remove any rubbish and all tools, and surplus materials provided for operations from and about the premises and shall leave all work clean and ready for use.

LAYING OUT OF THE WORK: The contractor shall carefully lay out his own work on the premises, except as otherwise provided, and make proper provision for the work of other contractors. The contractor, who will be responsible for its correctness, shall lay out all work of every description. Before ordering any material or doing any work, each contractor shall verify all measurements.

SHED AND STORAGE: The contractor shall provide maintain and remove at completion of work, suitable, substantial, water-tight storage sheds upon the premises where directed, in which he shall store all material which would be damaged by water or weather. Contractors shall confine the storage materials and equipment and the operation of their workmen to the limits provided by law, ordinance, permits, or as directed by MoDOT.

COORDINATION OF WORK: Proper coordination between contractor installing the radio towers and other contractors shall be maintained, so overall proper functioning layout shall be accomplished. In case the work required interferes with other contractors, the tower contractor may make a request 72 hours in advance to MoDOT, so that proper coordination is accomplished.

ACCEPTANCE: During installation, and at the time all components of this tower is installed by the contractor, it shall be subject to inspection by MoDOT. Before acceptance of the installation, site cleanup shall be affected by removal of excess or scrap material, packing, crating or other refuse. Excavation waste from tower foundation shall be disposed of as directed by MoDOT.

WARRANTY: All towers in their entirety shall be guaranteed for a period of one (1) year against defective materials, design, and workmanship, and if a failure of any portion of any part occurs during the first year due to above causes, the defective portions or parts, plus any damage caused by the failure of such defective part, shall be replaced promptly upon notice by the Department, by and at the expense of the Contractor.

MoDOT shall be responsible for providing a soil analysis of the tower site.

The new tower that was erected at the District 3 Office, Highway 61, Hannibal, Mo. should be used as an example of the MoDOT requirement described herein.



MEMORANDUM

Missouri Department of Transportation Construction - Materials Central Laboratory

TO: Kirk Juranas-8ao

CC/ATT: Kirk Juranas-8ao
Gary Goessmann-8ma

FROM: Alan Miller
Geotechnical Engineer

DATE: February 16, 2011

SUBJECT: Materials
Geotechnical Section
Foundation Investigation for
Romance Radio Tower
Job No. R35G
Ozark County

Attached is the boring log for a proposed radio tower near Romance.

The values in the following table may be used for drilled shaft design at this site.
The use of permanent casing is not anticipated.

| Elevation From - To | Unit Wt., pcf | Nominal Skin Resistance, ksf | Resistance Factor ¹ | Nominal Tip Resistance, ksf | Resistance Factor ¹ | Internal Friction Angle ϕ '° | Undrained Shear Strength, Su, ksf | Strain, ϵ_{50} | Lateral Subgrade Modulus, k_t , pci |
|---------------------|---------------|------------------------------|--------------------------------|-----------------------------|--------------------------------|-----------------------------------|-----------------------------------|-------------------------|---------------------------------------|
| 1485.3 - 1482 | Ignore | Ignore | Ignore | Ignore | Ignore | Ignore | Ignore | Ignore | Ignore |
| 1482 - 1471 | 118 | 1.0 | 0.45 | 30.0 | 0.5 | | 7.8 | 0.004 | >2000 |
| 1471 - 1463 | 140 | 4.0 | 0.55 | 50.0 | 0.5 | 40 | | 0.002 | >4000 |

¹ Resistance factor should be reduced by 20% for non-redundant drilled shaft foundations

cs
j:\sublec\alan\romance radio tower ltr.doc
Attachments

Allied Tower Company, Inc.

809 KANSAS

P. O. BOX 331

SOUTH HOUSTON, TEXAS 77587

PHONE 946-9546

X. ANCHOR DESIGN.

3-1-69

160 TOWER 2-DB 224 ANT
30 PSF + 1/2 ϕ ICE DESIGN LOAD

| ELEV.' | T # | H # | V # |
|--------|--------------|--------------|----------------|
| 150 | 2382 | 1535 | 1800 |
| 100 | 2357 | 1850 | 1445 |
| 50 | 1587 | 1470 | 575 |
| | <u>6,326</u> | <u>4,855</u> | <u>3,820 #</u> |

$$\frac{2}{7,640 \text{ # Req'd.}}$$

$$\text{Shaft Area} = \frac{6326}{22,000} = 0.288 \text{ sq" Req'd.}$$

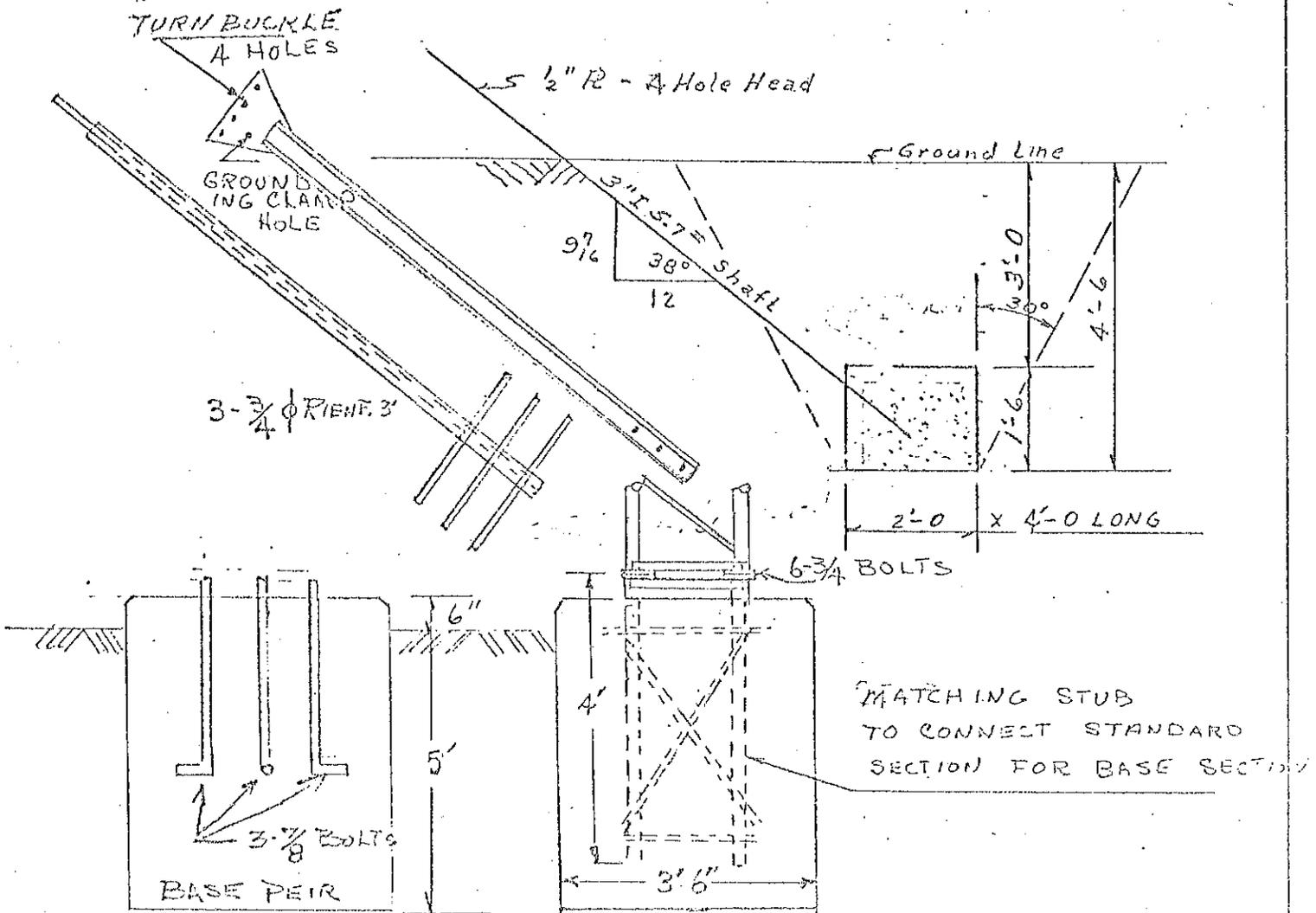
$$3" \text{ I } 5.7 = 1.64 \text{ sq" } \therefore \text{O.K.}$$

$$\text{Bearing Face Anchor} = \frac{4,855}{3,000} = 1.62 \text{ sq' Req'd.}$$

$$\text{Anchor Vert.} = 100 \frac{4.5}{3} [2 \times 2 + 2 \times 2 \times 7.2 + \sqrt{2 \times 2 \times 7.2 \times 7.2}] + 40 \times 2 \times 2 \times 1.5$$

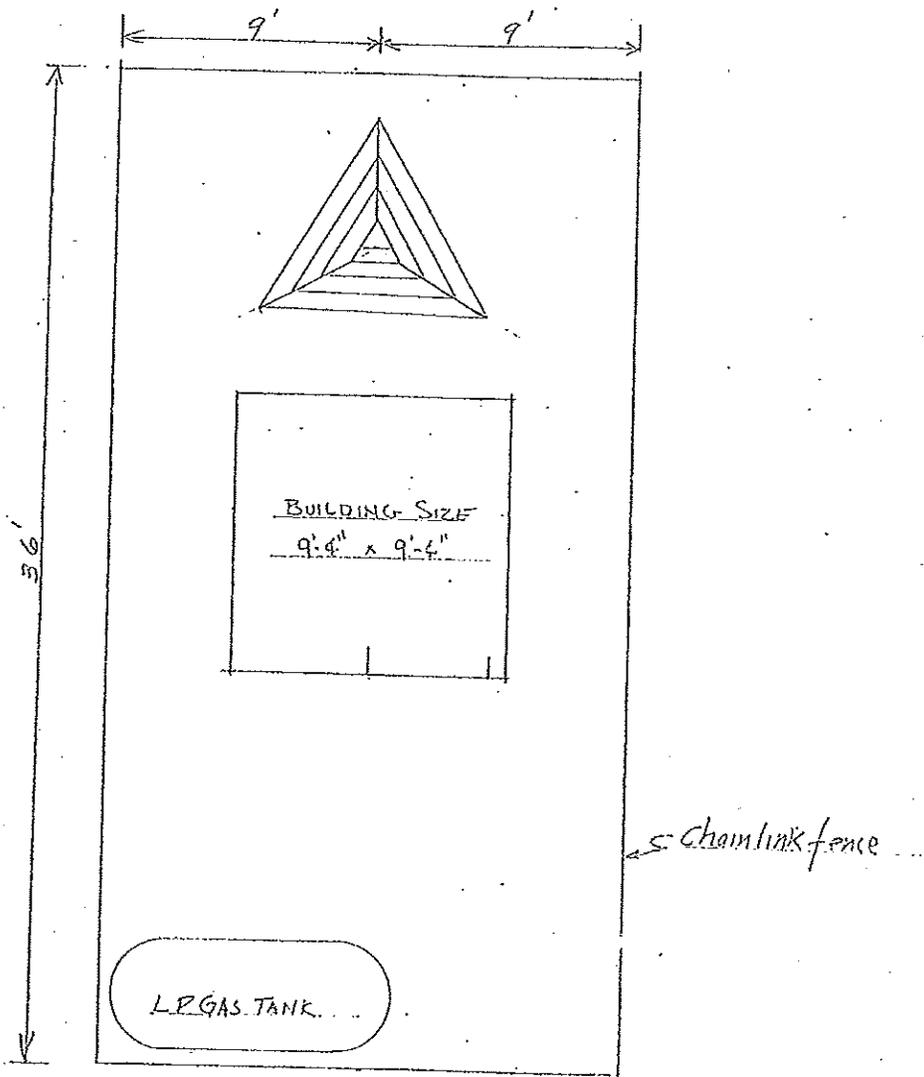
$$= 10,550 + 240 = 10,790 \text{ #} > 7,640 \text{ # Req'd.}$$

$$\text{Brng. Face} = 2 \times 1.5 = 3 \text{ sq' } > 1.62 \text{ sq' Req'd.}$$



OPTIONAL TWO TYPES OF BASE CONNECTION

RADIO STATION SITE LAYOUT





MEMORANDUM

Missouri Department of Transportation Construction and Materials Central Laboratory

TO: John Diggs-8tr

COPY: ProjectWise

FROM: Steve Bates *SB*
Environmental Chemist

DATE: March 8, 2011

SUBJECT: Materials
Asbestos & Heavy Metal Paint Inspection

| | |
|--------------------------|--------------------------|
| Route-Fire Tower Road | Route – Morris Road |
| Job No. N/A | Job No. N/A |
| Parcel N/A – Radio Tower | Parcel N/A – Radio Tower |
| Ozark County | Wright County |

We are providing you with the results of the requested inspection on the above referenced property. The inspection report contains an asbestos and a heavy metals survey, unless otherwise requested. The asbestos inspection included sample collection of suspect asbestos-containing material and National Voluntary Laboratory Accreditation Program (NVLAP) accredited testing to confirm the presence of asbestos. This asbestos and heavy metal paint report includes four different report forms. Form T746 lists all of the samples taken during the asbestos inspection. Form T747 shows only those samples that tested positive for Category I nonfriable asbestos-containing materials that may remain in the structure during demolition, if kept adequately wet to avoid visible air emissions. Form T748 shows only those samples that tested positive for asbestos and require removal prior to demolition. Form C760 lists all paint samples taken during the heavy metal paint inspection and their metal content.

In accordance with the National Emissions Standard for Hazardous Air Pollutants (NESHAP), as well as city and county asbestos abatement regulations - Registration, Notification, and Performance Requirements, regulated asbestos-containing material (RACM) namely, Friable and Category II nonfriable, have a high probability of becoming friable under normal demolition forces. Practices and procedures for removal prior to demolition, disposal, and clearances should be in accordance with referenced regulations. Missouri Department of Transportation policy is to perform asbestos abatements in accordance with NESHAP.

In accordance with Missouri Department of Natural Resources' Technical Bulletin "Managing Construction and Demolition Waste" dated January 31, 2003, a heavy metal paint inspection has been performed on the above referenced property. We are providing you with the results of this inspection. The inspection includes locating painted concrete, block and/or brick surfaces, sampling the painted surface(s) and testing the paint(s) to determine if hazardous heavy metals are present. Non-hazardous painted concrete, blocks, or bricks may be used as clean fill

John Diggs-8tr
Page 2
March 8, 2011

materials, if properly handled. You must contact the Central Office Design Division for proper handling of the reported painted surfaces.

Although our survey included observing and sampling behind walls, above ceilings, beneath floors, etc., it is possible that potentially hidden asbestos-containing materials may exist within the structure. To our knowledge, we have located all suspect asbestos-containing and all painted concrete, block and brick surfaces. If suspect asbestos-containing materials or if painted concrete, block and/or brick surfaces are observed in addition to those reflected in this inspection report, then please advise us immediately so that we may schedule a follow-up inspection.

Should you have any questions regarding these reports, please contact me at (573) 526-4359.

db

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Attachments

Missouri

Division of Labor Standards

WAGE AND HOUR SECTION



JEREMIAH W. (JAY) NIXON, Governor

Annual Wage Order No. 18

Section 077

OZARK 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, 2011

Last Date Objections May Be Filed: April 11, 2011

Prepared by Missouri Department of Labor and Industrial Relations

| OCCUPATIONAL TITLE | ** Date of Increase | * Hourly Rates | Over-Time Schedule | Holiday Schedule | Total Fringe Benefits |
|--------------------------------|---------------------|---------------------------------------|--------------------|------------------|-----------------------|
| Asbestos Worker | | \$23.72 | 56 | 28 | \$10.50 |
| Boilermaker | | \$32.31 | 57 | 7 | \$23.95 |
| Bricklayers-Stone Mason | | \$28.24 | 24 | 74 | \$15.06 |
| Carpenter | | \$23.33 | 61 | 4 | \$11.35 |
| Cement Mason | | \$21.76 | 64 | 4 | \$8.54 |
| Electrician (Inside Wireman) | | \$23.93 | 21 | 48 | \$11.17 + 10% |
| Communication Technician | | USE ELECTRICIAN (INSIDE WIREMAN) RATE | | | |
| Elevator Constructor | a | \$40.860 | 26 | 54 | \$23.255 |
| Operating Engineer | | | | | |
| Group I | | \$23.78 | 84 | 4 | \$11.00 |
| Group II | | \$22.19 | 84 | 4 | \$11.00 |
| Group III | | \$21.49 | 84 | 4 | \$11.00 |
| Group III-A | | \$22.19 | 84 | 4 | \$11.00 |
| Group IV | | | | | |
| Group V | | \$14.27 | 84 | 4 | \$11.00 |
| Pipe Fitter | | \$26.75 | 19 | 1 | \$14.07 |
| Glazier | | \$20.80 | 36 | 52 | \$5.86 |
| Laborer (Building): | | | | | |
| General | | \$19.45 | 112 | 4 | \$9.45 |
| First Semi-Skilled | | \$21.08 | 112 | 4 | \$9.45 |
| Second Semi-Skilled | | \$20.13 | 112 | 4 | \$9.45 |
| Lather | | USE CARPENTER RATE | | | |
| Linoleum Layer & Cutter | | \$23.33 | 123 | 78 | \$11.35 |
| Marble Mason | | \$20.62 | 124 | 74 | \$12.68 |
| Millwright | | \$23.58 | 61 | 4 | \$11.35 |
| Iron Worker | | \$25.00 | 50 | 4 | \$22.90 |
| Painter | | \$19.26 | 7 | 14 | \$11.49 |
| Plasterer | | \$22.00 | 64 | 4 | \$10.19 |
| Plumber | | \$26.75 | 19 | 1 | \$14.07 |
| Pile Driver | | \$23.58 | 61 | 4 | \$11.35 |
| Roofer | | \$21.11 | 10 | 2 | \$7.52 |
| Sheet Metal Worker | | \$25.91 | 4 | 24 | \$12.64 |
| Sprinkler Fitter | | \$30.84 | 33 | 19 | \$16.95 |
| Terrazzo Worker | | \$27.48 | 124 | 74 | \$14.32 |
| Tile Setter | | \$20.62 | 124 | 74 | \$12.68 |
| Truck Driver-Teamster | | | | | |
| Group I | | \$19.45 | 98 | 4 | \$4.72 |
| Group II | | | | | |
| Group III | | \$19.45 | 98 | 4 | \$4.72 |
| Group IV | | \$19.45 | 98 | 4 | \$4.72 |
| Traffic Control Service Driver | | \$16.35 | 48 | 49 | \$2.75 |
| 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.

**OZARK 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. 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.

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. 21: Means 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 five (5) days, Monday through Friday, shall constitute a work week. The regular starting time of a job may be moved not more than two (2) hours 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, the Employer shall be allowed to establish a four (4) day, ten (10) hours per day work week. This work week is defined as Monday through Thursday or Tuesday through Friday. All hours worked in excess of ten (10) hours per day or forty (40) hours per week shall be paid at the applicable overtime rate. This language is not intended to change the normal five (5) day, eight (8) hour per day work week. All overtime work performed after the regularly scheduled working hours Monday through Friday and Saturday shall be paid for at time and one-half (1½) the regular straight time rate of pay. Sundays and recognized holidays shall be paid for at two (2) times 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. An unpaid lunch period of thirty (30) minutes shall be allowed on each shift. All overtime work required before the established start time and after the completion of eight (8) hours of any shift shall be paid at one and one-half (1½) times the shift hourly rate.

**OZARK COUNTY
OVERTIME SCHEDULE - BUILDING CONSTRUCTION**

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. 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. 48: Means the regularly scheduled work week shall be five (5) consecutive days, Monday through Friday or Tuesday through Saturday. Eight (8) hours shall constitute a day's work. Starting time shall not be earlier than 7:00 a.m. nor later than 10:00 a.m. Forty (40) hours shall constitute a week's work. Overtime at the rate of time and one-half (1½) will be paid for all work in excess of forty (40) hours in any one work week. On the Monday through Friday schedule, all work performed on Saturday will be time and one-half (1½) unless time has been lost during the week, in which case Saturday will be a make up day to the extent of the lost time. On the Tuesday through Saturday schedule, all work performed on Monday will be time and one-half (1½) unless time has been lost during the week, in which case Monday will be a make-up day to the extent of the lost time. Any work performed on Sunday will be double (2) time. If employees work on any of the recognized holidays, they shall be paid time and one-half (1½) their regular rate of pay for all hours worked.

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.

**OZARK COUNTY
OVERTIME SCHEDULE - BUILDING CONSTRUCTION**

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.

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. 61: Means except as herein provided, eight (8) hours a day, 8:00 a.m. to 4:30 p.m., shall constitute a standard work day, and forty (40) hours per week shall constitute a week's work. The regular workday 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. 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 time worked on Sunday and 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) day ten 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) consecutive ten-hour four 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. When the five (5) day eight-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 for that day, or forty (40) hours per week. A make-up day is not to be used to make up time lost due to recognized holidays.

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.

**OZARK COUNTY
OVERTIME SCHEDULE - BUILDING CONSTRUCTION**

NO. 98: Means eight (8) hours a day shall constitute a standard work day, and forty (40) hours per week shall constitute a week's 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 the rate of time and 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 between the hours of 5:30 and 6:30 a.m. and 6:30 p.m. 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 per day or forty (40) hours per week. When the five (5) day eight (8) hours 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 per day or forty (40) hours per week. When the five (5) day eight (8) hour work week is in effect, starting time shall be between 7:00 a.m. and 8:00 a.m. All time worked before 7:00 a.m. shall be paid for at the rate of time and one-half (1½). All work performed on Saturday up to 6:00 p.m. (except as herein provided) shall be compensated for at the rate of time and one-half (1½). All time worked from 6:00 p.m. Saturday to 7:00 a.m. Monday will be paid for at the rate of double (2) time.

NO. 112: Means the regular 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 for, eight (8) hours a day shall constitute a standard work day, and forty (40) hours per week shall constitute a week's 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 the rate of time and 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 (8) hour days or four (4) ten (10) 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 hour periods between the hours of 6:30 a.m. and 6:30 p.m. 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 eight (8) hours or forty (40) hours per week.

NO. 123: Means except as provided, eight (8) hours a day (8:00 A.M. to 4:30 P.M.) shall constitute a standard work day, excluding the 30-minute lunch period, 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 (except as herein provided). All time worked on Sunday and herein named holidays shall be classified as overtime and paid at the rate of double 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) day ten-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) consecutive ten (10) hour days within the five 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 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 will 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 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.

**OZARK 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 this 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. 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.

NO. 48: 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 double (2) the straight-time rate of pay. Any one of the above-listed holidays falling on Sunday shall be observed on the following Monday and paid for at double (2) the straight-time rate of pay. Any of the above holidays falling on Saturday shall be observed on the previous Friday and paid at double (2) the straight-time rate of pay. Employees working on the Saturday will receive the standard pay for Saturday work.

NO. 49: The following days shall be observed as legal holidays: New Year's Day, Decoration Day, July 4th, Labor Day, Thanksgiving Day, Christmas Day, Employee's birthday and two (2) personal days. The observance of one (1) of the personal days to be limited to the time between December 1 and March 1 of the following year. If any of these holidays fall on Sunday, the following Monday will be observed as the holiday and if any of these holidays fall on Saturday, the preceding Friday will be observed as the holiday. If employees work on any of these holidays they shall be paid time & one-half (1½) their regular rate of pay for all hours worked.

**OZARK COUNTY
HOLIDAY SCHEDULE – BUILDING CONSTRUCTION**

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. 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.

NO. 78: The following days shall be recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas. If any of the above holidays fall on Sunday, Monday will be observed as the legal holiday. If any of the above holidays fall on Saturday, Friday will be observed as the legal holiday. All time worked on Sunday and herein named holidays shall be classified as overtime and paid at the rate of double time.

Heavy Construction Rates for
OZARK County

Section 077

| OCCUPATIONAL TITLE | * Date of Increase | Basic Hourly Rates | Over-Time Schedule | Holiday Schedule | Total Fringe Benefits |
|------------------------------|--------------------|--------------------|--------------------|------------------|-----------------------|
| CARPENTER | | | | | |
| Journeyman | | \$27.62 | 7 | 16 | \$11.40 |
| Millwright | | \$27.62 | 7 | 16 | \$11.40 |
| Pile Driver Worker | | \$27.62 | 7 | 16 | \$11.40 |
| OPERATING ENGINEER | | | | | |
| Group I | | \$25.72 | 5 | 15 | \$11.55 |
| Group II | | \$25.37 | 5 | 15 | \$11.55 |
| Group III | | \$25.17 | 5 | 15 | \$11.55 |
| Group IV | | \$23.12 | 5 | 15 | \$11.55 |
| Oiler-Driver | | \$23.12 | 5 | 15 | \$11.55 |
| LABORER | | | | | |
| General Laborer | | \$21.89 | 4 | 18 | \$9.89 |
| Skilled Laborer | | \$22.44 | 4 | 18 | \$9.89 |
| TRUCK DRIVER-TEAMSTER | | | | | |
| Group I | | \$25.54 | 12 | 3 | \$9.85 |
| Group II | | \$25.70 | 12 | 3 | \$9.85 |
| Group III | | \$25.69 | 12 | 3 | \$9.85 |
| Group IV | | \$25.81 | 12 | 3 | \$9.85 |

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

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

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

**OZARK 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 than 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.

**OZARK 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 | \$37.10 | \$5.00 + 34.5% |
| Lineman Operator | \$35.12 | \$5.00 + 34.5% |
| Groundman | \$23.98 | \$5.00 + 34.5% |

UTILITY WORK

| Occupational Title | Basic Hourly Rate | Total Fringe Benefits |
|--------------------|-------------------------|-----------------------------|
| Journeyman Lineman | \$36.53 | \$5.00 + 34.5% |
| Lineman Operator | \$33.76 | \$5.00 + 34.5% |
| Groundman | \$23.54 | \$5.00 + 34.5% |

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.