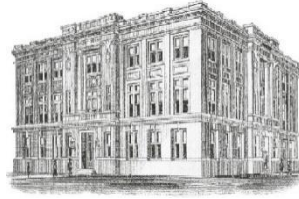


Christian County Commission



Invitation to Bid

Return bid no later than: **9:45 a.m.** Central Time

Product or Services Requested: **Lightning Protection System at Christian County Circuit Court Building**

(Please provide (4) four summary copies and one unbound original of your detailed bid proposal)

Bid Opening Date: **March 9, 2020**

Bid Opening Time: **10:00 a.m.**

Contact: Christian County Commission
100 W. Church Street, Room 100
Ozark, MO 65721

Phone: 417-582-4300 Fax: 417-581-5924

Email: countycommission@christiancountymo.gov

Christian County maintains a list of vendors interested in bidding on products and services for Christian County. It is the vendor's responsibility to update contact information. Vendors are removed from the list if they are invited to bid, but do not participate. The Christian County Commission office is not obligated to send invitations to vendors. Due to the volume of request and postage costs, the Commission Office does not send bids to all interested vendors. Christian County fulfills its legal requirements by posting a notice in the local paper.

(1) Submitting your bid:

Bids are opened in public meetings on the opening date and time specified above. Any interested persons may attend. Bids must be delivered no later than fifteen (15) minutes before bid opening time mentioned above. **Bids must be received in a SEALED envelope. Mark your envelope "BID DOCUMENTS-DO NOT OPEN".**

If the Commission office receives a container which is not identifiable as a bid/proposal, the Administrative Assistant will open the container to determine the contents. If the contents are determined to be a bid/proposal, the container will be resealed and the date and time received will be noted on the outside. All bids will remain sealed until they are opened and read aloud by the County Commissioners at the specified time. Bids which are not received in the Commissioner's Office at least 15 minutes prior to bid opening date and time shall be considered late, regardless of the degree of lateness, and normally will not be presented or opened, except as stated below. At the time fixed for opening of proposals, the content will be made public for the vendor and other interested persons. Vendors are cautioned to review their bid very carefully. Any additional information, specifications, drawings, etc. should be attached. Bids should be signed and dated. It shall be the responsibility of persons submitting bids to acquire the necessary specifications.

(2) Late bids:

Under extraordinary circumstances, the Commission may authorize the opening of a late bid when the bid was turned over to the physical control of an independent postal or courier service with a promised delivery time prior to the time set for the opening of bids. The County Commission is not responsible for bids sent to the wrong address, faxed, emailed, or received after the cut-off date and time. Remember to address or hand-deliver your bid. Bids will not be accepted by fax or email because we must have the original signed document. Bidders must consider the postal service or courier time schedules when sending their bids and provide ample time for delivery. The following guidelines may be utilized to determine the criteria for an extraordinary circumstance: Christian County offices were closed due to inclement weather conditions, postal or courier services were delayed due to labor strikes or unforeseen "Acts of God", or postal or courier services did not meet the delivery time promised to the vendor. In such case, the vendor must provide written proof that promised delivery time was prior to the time set for the bid opening. All such decisions are at the sole discretion of the Commission.

(3) Bid Withdrawal:

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

(4) Product Samples:

The Commission may request samples for evaluation purposes. Any samples requested must be provided free of charge. Samples which are not destroyed by testing will be returned at the vendor's expense if return of the samples is stipulated in the vendor's bid. Samples submitted by a vendor who receives the award may be kept for the duration of the contract for comparison with shipments received.

(5) Itemization of Proposal:

Vendor must clearly identify in his/her bid and on the pricing worksheet, all components. It is mandatory that vendors submit with their proposal documents, itemization of all goods and services proposed. The breakdown must be itemized by model/part number, description of goods or services, and unit cost.

(6) Minority Business Participation:

Christian County encourages the participation and utilization of minority business enterprises in all projects of the county. Christian County will provide equitable and fair opportunity to minority businesses to submit bids and proposals and to receive an award. By responding to this invitation, the vendor agrees that it does not discriminate on the basis of race, religion, creed, national origin, age, sex or disability, and that it will refrain from any unlawful employment practices.

(7) Communication with County Employees:

Vendors shall not communicate with any county employee regarding this Invitation to bid with the exception of the county contact written on the first page. Vendors shall ensure that no improper, unethical, or illegal relationships or conflict of interest exists between vendor, the county, any employee, officer, director, or principal of vendor or the county and any other party. The county reserves the right to determine the materiality of such relationships, when discovered or disclosed, whether intended or not. The county also reserves the right to decide at its sole discretion whether disqualification of vendor and/or cancellation of award shall result. Such disqualification or cancellation shall be without fault or liability to the county.

(8) Collusion:

By submitting a proposal in response to this invitation to bid, vendor and each person signing on behalf of the vendor, certify under penalty of perjury, that to the best of his/her belief the prices in the proposal were arrived at independently and without collusion, consultation, communication, or agreement for the purpose of restricting competition as to any matter relating to such prices with any other vendor, or any other competitor. Unless otherwise required by law, the prices in the bid have not been knowingly disclosed by vendor, and will not be knowingly disclosed by vendor, prior to opening, directly or indirectly, to any other vendor or competitor. No attempt has been made or will be made by vendor or any other person associated with this invitation to bid, partnership, corporation, or entity to submit or not to submit a proposal in response to this bid for the purpose of restricting competition.

(9) Incurred costs:

The county is not liable for any costs incurred by a vendor in the preparation or production of its proposal or for any work performed prior to the issuance of a valid contract under Missouri law. Such exemption from liability applies whether such costs are incurred by vendor or indirectly through vendors agent, employees, assigns or others, whether related or not to vendor.

(10) For Construction Services:

All on site employees of vendors and sub vendors must complete required safety training. Required safety training is OSHA 10 training. (A ten (10) hour course in construction safety and health taught by an OSHA approved instructor), or similar program at least as stringent as OSHA 10 training. For more information contact the Missouri Division of Labor Standards. Christian County requires documentation showing that the on-site employee/s have completed the required training.

(11) Vendor's Personnel Qualifications:

Christian County reserves the right to approve or disapprove the vendor's personnel providing services for Christian County Government. Christian County also reserves the right to request replacement of any person assigned to provide services. Unless the situation regarding the personnel requires immediate replacement, the vendor shall be allowed at least fourteen (14) days after notification to replace unsatisfactory personnel.

If requested, the vendor shall provide a list of names, social security numbers, and dates of birth for each such personnel who will be providing services at Christian County buildings. In addition, the vendor must notify Christian County of any additions or changes to the list. Christian County reserves the right to accept or reject any of the vendor's personnel assigned to the contract to provide services.

(12) Discount applicable:

Vendor will provide information on any quantity discounts that may apply to the equipment or services utilized in developing their pricing structure. State the length of time the discounts are available post-installation.

(13) Insurance:

The vendor shall understand and agree that Christian County cannot save and hold harmless and or indemnify the vendor or employees against any liability incurred or arising as a result of any activity of the vendor, or any activity of the vendor's employees related to the vendor's performance under the contract. Therefore, the vendor must acquire and maintain adequate liability insurance in the form (s) and amount (s) sufficient to protect Christian County, its agencies, its employees, its clients, and the general public against any such loss, damage and/or expense related to his/her performance under this contract. The vendor shall take out and maintain during the life of the contract comprehensive general liability insurance which names Christian County, Missouri and its elected officials and employees as additional named insureds in an amount sufficient to cover the sovereign immunity limits for public entities as calculated by the Department of Insurance and published annually in the Missouri Register per section 537.610, RSMo. For the life of the contract, vendor shall maintain comprehensive general liability insurance coverage for all claims arising out of a single accident or occurrence of at least \$3,000,000.00 and for any one person in a single accident or occurrence of at least \$500,000.00 Vendor shall maintain during the life of the contract Workers Compensation Insurance for Vendor's employees coverage that shall meet Missouri statutory limits or \$1,000,000 for each accident, whichever is greater. General and other non-professional liability insurance shall include an endorsement that adds Christian County and their respective officials and employees as an additional insured. Self-insurance coverage or another alternative risk financing mechanism may be utilized provided that such coverage is verifiable and irrevocably reliable and Christian County is protected as an additional insured.

(14) Vendor Liability:

The vendor shall be responsible for any and all personal injury (including death) or property damage as a result of the vendor's negligence involving any equipment or service provided under the terms and conditions, requirements and specifications of the contract. In addition, the vendor assumes the obligation to save Christian County, including its agencies, employees, and assignees, from every expense, liability, or payment arising out of such negligent act. The vendor also agrees to hold Christian County including its agencies, employees, and assignees, harmless for any negligent act or omission committed by any subcontractor or other person employed by or under the supervision of the vendor under the terms of the contract. The

vendor shall not be responsible for any injury or damage occurring as a result of any negligent act or omission committed by Christian County, including its agencies, employees, and assignees.

(15) Business Compliance:

The vendor must be financially sound and must not be operating under the protection of the United States Bankruptcy Code. The vendor must be in compliance with the laws regarding conducting business in the State of Missouri. The vendor certifies by signing the signature page of this original document and any amendment signature page(s) that the vendor and any proposed subcontractors either are presently in compliance with such laws or shall be in compliance with such laws prior to any resulting contract award. The vendor shall provide documentation of compliance upon request by Christian County. The compliance to conduct business in the state shall include but may not be limited to:

- Registration of business name. (if applicable)
- Certificate of authority to transact business/certificate of good standing. (if applicable)
- Taxes (e.g., city/county/state/federal)
- State and local certifications (e.g. Professions/occupations/activities)
- Licenses and permits (e.g., city/county license, sales permits)
- Insurance (e.g., worker's compensation/unemployment compensation)

(16) Terms and Conditions:

The vendor is cautioned when submitting pre-printed forms containing terms and conditions or other type material to make sure such documents do not contain other terms and conditions which conflict with those of this agreement and its contractual requirements. The vendor agrees that in the event of conflict between any of the vendor's terms and conditions and those contained in this agreement, that this agreement shall govern. Taking exception to Christian County terms and conditions may render a vendor's bid non-responsive and remove it from consideration for award.

~~The Commission will give vendor a 30-day written notice prior to the end of the term whether the county has exercised its option to renew or not.~~

A binding contract shall consist of: (1) the RFP or invitation to bid, amendments thereto, with RFP bid invitation changes/additions, (2) the vendor's proposal and (3) the County Commission's acceptance of the proposal by "notice of award" or by "purchase order". All Exhibits and Attachments included in the RFP or bid invitation shall be incorporated into the contract by reference.

The contract expresses the complete agreement of the parties and performance shall be governed solely by the specifications and requirements contained therein.

Any changes to the contract, 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 vendor and the County Commission or by a modified purchase order prior to the effective date of such modification. The vendor expressly and explicitly understands and agrees that no other method and/or no other document, including correspondence from the County Commission, acts, and oral communications by or from any person, shall be used or construed as an amendment or modification to the contract.

(17) Employee Bidding/Conflict of Interest:

Vendors who are elected or appointed officials or employees of Christian County or any political subdivision thereof, serving in an executive or administrative capacity, must comply with sections 105.450 to 105.458, RSMo, regarding conflict of interest. If the vendor or any owner of the vendor's organization is currently an elected or appointed official or an employee of Christian County or any political subdivision thereof, please provide the following information:

- Name and title of the elected or appointed official or employee of Christian County or any Political subdivision.
- What is the percentage of ownership interest in the vendor's organization held by elected or appointed official or employee of Christian County or political subdivision thereof?

(18) Independent Contractor:

The vendor is an independent contractor and shall not represent the vendor or the vendor's employees to be employees of Christian County or an agency of Christian County. The vendor shall assume all legal and financial responsibility for salaries, taxes, FICA, employee fringe benefits, workers compensation, employee insurance, minimum wage requirements, overtime, etc.

(19) Substitutions:

The vendor shall not substitute any item(s) without the prior written approval of the Christian County Commissioners. In the event an item becomes unavailable, the vendor shall be responsible for providing a suitable substitute item. The vendor's failure to provide an acceptable substitute may result in cancellation or termination of the contract. Any item substitution must be a replacement of the contracted item with a product of equal or better capabilities and quality, and with equal or lower pricing. The vendor shall understand that Christian County reserves the right to allow the substitution of any new or different product/system offered by the vendor. Christian County shall be the final authority as to the acceptability of any proposed substitution. Any item substitution shall require a formal contract amendment authorized by Christian County Commissioners prior to Christian County acquiring the substitute item under the contract. The vendor shall not be relieved of substituting a product in the event of manufacturer discontinuation or other reason simply for reasons of unprofitability to the vendor.

(20) Replacement of Damaged Product:

The vendor shall be responsible for replacing any item received in damaged condition at no cost to Christian County. This includes all fuel costs for returning non-functional items to the vendor for replacement.

(21) Prices:

The vendor shall submit firm fixed prices on the Pricing Page. All pricing shall be considered firm for the duration of the contract period. All pricing shall be quoted with all fees included. Vendor's prices must be the lowest offered to any governmental or commercial consumer, under the same terms and conditions.

(22) Fuel charges:

Fuel charges shall be added into the quote for services. However, if the cost of #2 diesel as reported by the Department of Energy internet site and recorded as the "Weekly Retail On-Highway Diesel Prices" for the Midwest Region exceeds \$3.50 per

gallon, the vendor will charge no more than 1 ½ % for each \$.10 increase in the recorded cost of fuel above the \$3.50 base line. It is expected, because of the timeliness of the DOE report, the cost of fuel for a prior month shall be used as the basis for a current month's fuel surcharge assessment. January's reported diesel cost shall be used to compute any surcharge for February's services, etc. Vendor agrees that any additional charges related to fuel increases must be agreed upon between vendor and Christian County before implementation by the vendor.

(23) Description of Product:

The vendor should present a detailed description of the product proposed on **the Pricing Sheet (Page 11)** in response to this Invitation for Bid. It is the vendor's responsibility to make sure all products proposed are adequately described in order to conduct an evaluation of the bid. At the time fixed for opening of proposals, the content will be made public for the information of the bidder and others interested.

(24) Non-Exclusivity:

The Contract is non-exclusive and shall not in any way preclude the County from entering into similar agreements and/or arrangements to acquire equal or like goods and/or services from other vendors. The County may make multiple awards from a single solicitation document when such awards are in the best interest of the county.

(25) Billing and Payments:

Invoices will be submitted to Christian County Commission, 100 W Church St, Room 100, Ozark, MO 65721. It is estimated there are 25 various offices and departments requiring separate billing (if applicable to bid products offered). Vendor shall provide the department with invoices and statements of accounts on a monthly basis noting any amounts and invoices past due. Invoices should be delivered with the materials and packing slip. Payment will be made within 30 days from receipt of an accurate invoice.

Services or goods must be received before payment can be made. The vendor shall submit all reports required herein and a copy of each invoice as supporting documentation with the monthly statement. Other than the payments and reimbursements specified above, no other payments or reimbursements shall be made to the vendor for any reason whatsoever including, but not limited to taxes, shipping charges, insurance, interest, penalties, termination payments, attorney fees, liquidated damages, etc.

Notwithstanding any other payment provision of the contract, if the vendor fails to perform required work or services, fails to submit reports when due, or is indebted to the United States, Christian County may withhold payment or reject invoices under the contract.

Final invoices are due no later than thirty (30) calendar days after the expiration of the contract. Christian County shall have no obligation to pay any invoice submitted after such date. If a request by the vendor for payment or reimbursement is denied, Christian County shall provide the vendor with written notice of the reason(s) for denial.

If the vendor is overpaid by Christian County, upon official notification by Christian County, the vendor shall provide Christian County with a check payable as instructed by Christian County in the amount of such overpayment. The vendor shall submit the overpayment to Christian County at the address specified. The vendor shall agree and understand that Christian County shall be solely responsible for payment for only those services requested by Christian County.

(26) Return of Goods:

Christian County may cancel any purchase at any time for a full credit.

(27) Management of Materials:

The vendor agrees and understands that as the needs of the county change, the county will notify the vendor of those changes. If requested by the county, the vendor shall make a corresponding adjustment to the services. The vendor will implement the requested changes upon notification.

In the event changes occur during the effective period of this contract which are beyond the control of the vendor that significantly increase or decrease the established cost, the vendor or Christian County may request a corresponding modification to the established cost.

With such request, the vendor must provide documentation of the change and must demonstrate how such change affects the cost. In addition, the vendor shall recommend an adjusted cost accompanied by the resulting calculations. However, the vendor shall agree and understand that any such request must be approved by the Christian County Commissioners.

The decision of the adjustment to the cost by Christian County shall be final and without recourse.

(28) Schedule:

The vendor shall ensure that services are performed in a manner so as to minimize any interference, annoyance, or disruption to the operations of Christian County.

In the event the vendor does not perform in accordance with the vendor's agreement, Christian County shall notify the vendor following determination of such. Vendor shall be responsive to the needs of Christian County at all times. The vendor shall be responsible for all permits, fees, and expenses related to the service. The vendor shall disclose to Christian County all information on sub vendor contracts/agreements, if applicable, including any rebates or incentives offered by sub vendors to the contactor.

(29) Services:

The vendor agrees to provide a detailed description of the services to be provided, including any additional information about the services on a separate sheet of paper if needed. The vendor will provide an itemization of the amount the vendor will charge, the unit of measure for the services, and specific increments and timeframes to submit invoices to the vendor and receive payments from the vendor.

(30) Reporting Requirements:

On a monthly basis, the vendor shall submit a report to Christian County for each County building site, identify the services provided and the dates of service.

The vendor must maintain financial and accounting records and evidence pertaining to the contract in accordance with generally accepted accounting principles. The vendor shall make all records, books, and other documents relevant to the contract available

to Christian County and the Christian County Auditor in an acceptable format and at all reasonable times during the term of the contract, and for three (3) years from the date of final payment on the contract or the completion of an independent audit, whichever is later. If any litigation, claim, negotiation, audit, or other actions involving the records has been started before the expiration of the retention period, the vendor shall retain such records until completion of the action and resolution of all issues which arise from it. Failure to retain adequate documentation for any service billed may result in recovery of payments for services not adequately documented.

The vendor shall permit the County Auditor or authorized representatives of Christian County or any other division of government to have access, for the purpose of auditing or examination, to any of the vendor's books, documents, papers, records, recording receipts and disbursements of any of the funds paid to the vendor. The vendor further agrees that any audit exception noted by governmental auditors shall not be paid by Christian County and shall be the sole responsibility of the vendor. However, the vendor shall have the right to contest any such exception by any legal procedure the vendor deems appropriate. Christian County will pay the vendor all amounts which the vendor may ultimately be held entitled to receive as a result of any such legal action.

The vendor shall agree and understand that if contract monitoring reveals that an audit is warranted, Christian County reserves the right to require the vendor to have an audit of financial records, accounting records, and related contract documentation performed by an independent Certified Public Accountant (CPA) in accordance with generally accepted auditing standards. Christian County's determination of the need for the audit shall be final and without recourse.

(31) Liquidated Damages:

The vendor agrees and understands that the provision of the services in accordance with the schedules and requirements stated herein and in accordance with the Christian County Commissioner's approval are considered critical to the efficient operations of Christian County. Since the amount of actual damages would be difficult to establish in the event the vendor fails to comply with the schedules and requirements, the vendor shall agree and understand that the amount identified below as liquidated damages shall be reasonable and fair under the circumstances:

In the event the vendor fails to perform the services, the vendor shall be assessed liquidated damages in the amount of ten percent (10%) of the price for the services for each twenty-four (24) hour period thereafter in which the identified requirement is not completed. If the fault lies with Christian County, no assessment shall be made.

The vendor shall also agree and understand that such liquidated damages shall either be deducted from the vendor's invoices pursuant to the contract or paid by the vendor as a direct payment to Christian County at the sole discretion of Christian County. The vendor shall agree and understand that all assessments of liquidated damages shall be within the discretion of Christian County and shall be in addition to, not in lieu of, the rights of Christian County to pursue other appropriate remedies.

(32) Excused Performance:

Any failure or delay in performance or payment due to contingencies beyond either party's reasonable control, including strikes, riots, terrorist acts, compliance with applicable laws or governmental orders, fires, and acts of God, shall not constitute a breach of this agreement.

(33) Cancelling Service:

The Christian County Commission reserves the right to discontinue service at any time by giving a 30 day notice. The vendor shall agree and understand that the vendor shall terminate the services upon written notification from Christian County. The decision by the Christian County Commissioners shall be final and without recourse.

(34) Determination for Award:

The award shall be made to the lowest priced and best responsive vendor. Christian County reserves the right to reject any bid which is determined unacceptable for reasons which may include but are not necessarily limited to: 1) failure of the vendor to meet mandatory general performance specifications; and/or 2) failure of the vendor to meet mandatory technical specifications; and/or, 3) receipt of any information, from any source, regarding delivery of unsatisfactory product or service by the vendor within the past three years. As deemed in its best interests, Christian County reserves the right to clarify any and all portions of any vendor's offer.

Agreements signed by Christian County must be signed by at least a majority of the members of the *County Commission*. Agreements must be attested by the *County Clerk* and approved to form by the *County Counselor*. In addition, the *County Auditor* must certify that there is an unencumbered balance available to pay the contract cost.

(35) Protesting bid award:

A bid award protest must be submitted in writing and must be received by the county within ten (10) calendar days after the date of the award. If the tenth day falls on a Saturday, Sunday or state holiday, the period shall extend to the next business day. A protest submitted after the ten (10) calendar day period shall not be considered. The written protest should include the following information: (A) Name, address, and phone number of the protester, (B) Signature of the protester or the protester's representative, (C) Solicitation product, (D) Detailed statement describing the grounds for the protest; and supporting exhibits, evidence, or documentation to substantiate the claim.

(36) Suspension or debarment of Vendor:

The County Commission may suspend or debar a vendor for cause. The following shall be sufficient cause for suspension or debarment. The list is not meant to be all inclusive but shall serve as a guideline for vendor discipline and business ethics:

Failure to perform in accordance with the terms, conditions and requirements of a contract/purchase order.

Violating any federal, state or local law, ordinance or regulation in the performance of a contract/purchase order.

Providing false or misleading information on an application, in a bid, or in correspondence to county offices.

Failure to honor a bid for the length of time specified.

Colluding with others to restrain competition. Obtaining information, by whatever means, related to a proposal submitted by a competitor in response to a request for proposal in order to obtain an unfair advantage during the negotiation process.

Contacting bid evaluators or any other person who may have influence over the award, without authorization from the County Commission, for the purpose of influencing the award of a contract; or giving gifts, meals, trips or any other thing of value or a monetary advantage for personal benefit, directly or indirectly, to an employee of the county or to any evaluator of bids/proposals.

The vendor may appeal suspension or debarment by submitting a written request to the County Commission within fifteen (15) calendar days after receipt of the formal notice. The vendor must provide specific evidence and reasons why the suspension or debarment is not necessary. On the basis of this information, the suspension may be modified, rescinded, or affirmed. The decision shall be final and mailed to all parties.

(37) PRICING SHEET

Product/Service	Size/Type	Frequency	Price (includes all fees)

(38) Declaration:

The vendor hereby declares understanding, agreement and certification of compliance to provide the items and/or services, at the prices quoted, in accordance with all terms and conditions, requirements, and specifications of this original invitation to bid. The vendor further agrees that upon receipt of an authorized purchase order from the Christian County Commission or when a Notice of Award is signed and issued by the Commission, a binding contract shall exist between the vendor and Christian County.

Signature required below confirming understanding of this statement.

Doing Business as (DBA) Name	Legal Name of Entity/Individual Filed with IRS for this Tax ID No.
Mailing Address	IRS Form 1099 Mailing Address
City, State, Zip Code	City, State, Zip Code

Contact Person	Email Address
Phone number	Fax number
Authorized Signature	Date
Printed Name	Title

List three (3) business references:

1st

Company Name

Representative Name

Address

City

State

Zip

Business Phone

Business Fax

Cellular Phone

email address if available

2nd

Company Name

Representative Name

Address

City

State

Zip

Business Phone

Business Fax

Cellular Phone

email address if available

3rd

Company Name

Representative Name

Address

City

State

Zip

Business Phone

Business Fax

Cellular Phone

email address if available

(39) Contact Information:

Any additional information desired may be requested by mail to the address listed, or by telephone to 417-582-4300. Information requests may also be e-mailed to countycommission@christiancountymo.gov. This e-mail address is for information requests only and shall not be used for submission of proposals or modifications to proposals. Such submissions will be rejected and deleted without notification to the sending party.

Thank you for your consideration of this Invitation to Bid. We appreciate your participation in the bidding process.

CHRISTIAN COUNTY COMMISSIONERS
Ralph Phillips, Presiding Commissioner
Hosea Bilyeu, Western Commissioner
Mike Robertson, Eastern Commissioner

Bid Specifications

Lightning Protection System at Christian County Circuit Court Building

102 West Walnut St, Ozark, MO 65721

Summary:

This section specifies the lightning protection system for the Christian County Justice Center located at 102 West Walnut Street in Ozark, Missouri. This system provides safety for the building and occupants by preventing damage to the structure caused by lightning. The design of this system is to be in strict accordance with this specification. The work covered under this specification consists of furnishing labor, materials, and services required for the completion of a functional and unobtrusive lightning protection system which meets the requirements of Underwriters Laboratories.

System Description:

The entire lightning protection system shall be designed and installed in accordance with:

- a. National Fire Protection Association (NFPA) Document #780
- b. Underwriters Laboratories, Inc (UL) Standard #96A
- c. Lightning Protection Institute (LPI) Standard #175

Quality Assurance:

The contractor shall furnish an LPI Master Installation Certificate or a Limited Scope report upon completion of the installation.

Products:

All materials shall comply in weight, size, and composition with the requirements of a nationally recognized testing laboratory. All equipment shall be properly listed and labeled. The system furnished under this specification shall be the standard product of a manufacturer regularly engaged in the production of lightning protection equipment and a member of LPI. Equipment shall be the manufacturer's latest approved design of construction to suit the application where it is to be used in accordance with accepted industry standards and with NFPA, LPI, and UL requirements.

Acceptable Manufacturers:

Advanced Lightning Technology, Ltd. (www.altfab.com)
East Coast Lightning Equipment, Inc. (www.eclc.biz)
ERICO, Inc. (www.erico.com)
Harger, Inc. (www.harger.com)
Heary Brothers Lightning Protection Co., Inc. (www.hearybros.com)
Independent Protection Company, Inc. (www.ipclp.com)
Preferred Lightning Protection (www.preferredlp.com)
Robbins Lightning, Inc. (www.robbinslightning.com)
Thompson Lightning Protection, Inc. (www.tlpinc.com)

Materials:

- a. Class I materials shall be used for systems on structures not exceeding seventy-five (75) feet in height.
- b. Copper shall be of the grade ordinarily required for commercial electrical work, generally designated as being ninety-five (95) percent conductive when annealed. Aluminum conductors shall be of electrical grade aluminum.
- c. Lightning protection materials shall be coordinated with building construction materials to assure compatibility. Aluminum lightning protection materials shall not be embedded in concrete or masonry, installed on or below copper surfaces, or used where contact with the earth is possible terminating 18" above grade level minimum. Copper lightning protection materials shall not be installed on aluminum surfaces. Copper system components within two (2) feet of chimney exhausts shall be tin coated to protect against deterioration.
- d. Strike termination devices shall be provided to place the entire structure under a zone of protection as defined by the Standards. Air terminals shall project a minimum of ten (10) inches above protected areas or objects. Air terminals shall be located within two (2) feet of exposed corners and roof edges.
- e. Metallic bodies having a thickness 3/16" or greater may serve as strike termination devices without the addition of air terminals. These bodies shall be made a part of the lightning protection system by connection(s) according to the Standards using main size conductors and bonding fittings with **three (3) square inches** of surface contact area.
- f. Cable conductors shall provide a two-way path from strike termination devices horizontally and downward to connections with the ground system. Cable conductors shall be free of excessive splices and sharp bends. No bend of a conductor shall form a final included angle of less than ninety (90) degrees nor have a radius of bend less than eight (8) inches. Structural elements and design features shall be used whenever possible to minimize the visual impact of exposed conductors.
- g. Cable down conductors may be concealed within the building construction or enclosed within PVC conduit from roof to grade level. Down conductors shall be spaced at intervals averaging not more than one-hundred (100) feet around the protected perimeter of the structure. In no case shall any structure have fewer than two (2) down conductors.
- h. In the case of structural steel frame construction, cable down conductors may be omitted and roof conductors shall be connected to the structural steel frame at intervals averaging not more than one-hundred (100) feet around the protected perimeter of the structure.
- i. Exposed cable conductors shall be secured to the structure at intervals not exceeding three (3) feet. Fasteners, nails, screws, or bolts shall be of suitable configuration for the intended application and of the same material as the conductor or of electrolytically compatible materials. Galvanized or plated steels are not acceptable.
- j. Connectors and splicers shall be of suitable configuration and type for the intended application and of the same material as the conductors or of electrolytically compatible materials.
- k. Ground terminations suitable for the soil conditions shall be provided for each downlead conductor. Where the structural steel framework is utilized as main conductors for the system, perimeter columns shall be connected to the grounding system at intervals averaging sixty (60) feet or less on the protected perimeter. For any structure in excess of sixty (60) feet in vertical elevation above grade, a ground loop interconnecting all ground terminals and other building grounded systems shall be provided.
- l. Common interconnection of all grounded systems within the building shall be accomplished using main size conductors and fittings. Grounded metal bodies located within the calculated bonding distance as determined by the formulas of the Standards shall be bonded to the system using properly sized bonding conductors.

Execution:

The installation of the lightning protection system components shall be done in a neat and workmanlike manner. Roof penetrations required for down conductors or for connections to structural steel framework shall be made using through-roof assemblies with solid rods and appropriate roof flashings. The roofing contractor shall furnish the methods and

materials required at roofing penetrations of the lightning protection components and any additional roofing materials or preparations required by the roofing manufacturer for lightning conductor runs to assure compatibility with the warranty of the roof. (Note: The roofing contractor will be responsible for sealing and flashing all lightning protection roof penetrations as per the roof manufacturer's recommendations).