

REQUEST FOR PROPOSALS

ACOUSTIC BAT SURVEY SERVICES Knob Creek Road – CSX Railroad Overpass Project

CITY OF JOHNSON CITY, TN



RFP # 6045

Proposal Due Date/Time
July 1, 2016 4:00 PM

City of Johnson City
Purchasing Department
209 Water Street (37601)
P. O. Box 2150 (37605)
Johnson City, TN

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RFP # 6045

REQUEST FOR PROPOSAL
TO PROVIDE
ACOUSTIC BAT SURVEY SERVICES
TO THE
CITY OF JOHNSON CITY

KNOB CREEK ROAD – CSX RAILROAD OVERPASS PROJECT
LOCATED NEAR THE INTERSECTION OF KNOB CREEK
ROAD AND WEST MOUNTAINVIEW ROAD
JOHNSON CITY, TN

I. GENERAL

The City of Johnson City is requesting proposals from Biological Consulting Companies for acoustical survey services for Indiana bat (*Myotis sodalis*) and the northern long-eared bat (*Myotis septentrionalis*) in an area identified as the Knob Creek Road – CSX Railroad Overpass Project, which is located near the intersection of Knob Creek Road and West Mountainview Road in Johnson City, Tennessee.

The Biological Consulting Company shall conduct an acoustic survey and report the findings in accordance with the latest guidelines published by the U.S. Fish & Wildlife Services (USFWS) and shall meet any additional requirements established by the Tennessee Department of Transportation (TDOT) for conducting surveys for federally and state funded projects.

II. PROJECT DESCRIPTION AND SCOPE

• **Site Description**

The Knob Creek Road Overpass project is located along the Knob Creek Road corridor between Marketplace Boulevard located at the eastern end of the project and Simmons Ridge/Redstone Road located at the western end of the project. Proposed improvements to Knob Creek Road consists of widening the roadway to five lanes, re-routing the roadway in the vicinity of the existing roadway tunnel that passes under the CSX railroad, and constructing a new bridge over the railroad at an alternate nearby location.

The entire project will affect approximately one mile of roadway, disturbing approximately 35 acres of land. See the attached Site Location Map (page 7) for the location of the project.

- **Phase 1 Bat Survey – Initial Project Screening**

Phase 1 Initial Project Screening was conducted in February of 2015. The project was found to be located outside of any known maternity colony home range, but within the potential habitat range of both species of bats. A suitable summer habitat assessment was made and it was determined that a potential habitat exists on the site for bat maternity roosts.

Water resources exist within the east side of the project area and generally within a few hundred yards south of the project site. This resource is Knob Creek, which provides watering and foraging opportunities for bats.

The project site contains approximately four acres of forested area consisting of secondary and regenerative growth forest along with some individual trees. The forested area includes abundant mixed snags and bare dead limbs with loose exfoliating bark. The forested areas generally contain potential tree habitat characteristics for Indiana bat and northern long-eared bat (NLEB) summer roosting mainly based on a mix of snags, dead limbs, and a few large white oak trees with mature bark. More specifically, there are 62 trees with suitable roost conditions in an area approximately 3.2 acres in size. This area is located within the limits of clearing and grubbing operations proposed for the roadway construction.

The complete Summer Habitat Assessment is available to the Consultant before and after submission of the proposal.

- **Phase 2 Bat Survey – Presence/Absence Survey**

The Consultant shall conduct an acoustic survey to determine the presence or probable absence of Indiana bats. The survey may also pick up NLEB if present. However, if no known roost trees are onsite, and no nearby hibernacula for NLEB is located near the site, an acoustic hit for NLEB may not trigger regulatory requirements for the NLEB.

As required by the USFWS, the survey shall be completed prior August 15, 2016.

The acoustic survey shall be conducted in full accord with the attached *Appendix C, Phase 2 Acoustic Surveys*. *Appendix C* has been prepared by the USFWS in accordance with the USFWS FEB 2016 “Final 4D rule”.

Proposed Phase 2 study plans shall be submitted to the USFWS field office prior to conducting the survey for review and concurrence. Although the Knob Creek Road Overpass project is a linear project, suitable bat habitat was not found along the entire corridor. Therefore, following the protocol for a linear project may not be appropriate for this project. Nonetheless, *Appendix F, Linear Project Guidance* has been attached to

this RFP for informational purposes. It is entirely the Consultant's responsibility to develop a study program that is acceptable to the USFWS field office.

- **Further Study and Actions**

Depending on the outcome of the Phase 2 Presence/Absence Survey, the reaction of the USFWS to the results, and the viability of entering into the Forest-Dwelling Bat Conservation Memorandum of Understanding (CMOU) to contribute to the Imperiled Bat Conservation Fund (IBCF), the City will decide which direction to take for the next phase of this bat survey project. Our contract with the Consultant may be amended at that time to include further phase(s), depending on the decision made and the direction taken.

- **Securing Private Property Permission/Access**

After the survey program has been established by the Consultant and approved by the USFWS, the City will secure the necessary private property permissions to access the property. The Consultant will be asked to accompany the City representative to explain the technical details to the private citizen and to introduce the Consultant to the citizen.

- **Communication and Project Engineer**

The Selected Consultant shall communicate through and coordinate with the assigned city Project Engineer. The city Project Engineer will be assigned by the Public Works Director. The city Project Engineer will be responsible for introducing the Consultant to contacts in other applicable departments of the City.

III. CONTENT AND SUBMITTAL OF PROPOSAL

- **General**

Interested Biological Consulting Companies must submit a proposal to the City in compliance with this RFP. Proposals should include information on completed projects similar to Johnson City's bat survey project. Include background information on the project team. The Consultant shall provide three different references of previous clients, for completed projects that are similar to the Johnson City project. Provide the following information for each reference:

1. A description of how the scale of Johnson City's project compare's with the referenced client's project,
2. The previous client's name and contact information,
3. The previous client's initial agreed upon services fee,
4. The final fee if the client agreed to an increase in the services fee. Provide information for why the increased fee was needed.

5. State if the acoustic survey services were provided within the agreed upon deadline, and
6. The length an extension of time, if an extension was granted.

- **Bat Survey Team**

List the specific individuals who will be included on the survey team and their specific experience in preparing acoustic surveys for bats. Acoustic surveyors shall have either completed one or more of the available bat acoustic courses/workshops (e.g. BCI, BCM, AnaBat) or be able to show similar on-the-job or academic experience.

The acoustic survey shall be conducted by qualified biologist. A qualified biologist is an individual who holds a U.S. Fish & Wildlife Service Recovery Permit (Federal Fish and Wildlife Permit) for Indiana bats in the state of Tennessee and/or has been authorized by the appropriate state agency to net and handle Indiana bats.

Please include only those individuals who will be completing the work so that City personnel will understand whom to contact. **Providing biographical sketches of principals or owners of the firm is not necessary.** Also include any subcontractors proposed to complete any of the project tasks, (e.g., field work, survey work, civil engineering, etc.).

- **Consultants Existing Work Load**

List current projects that the Bat Survey Team members are assigned to, and provide approximate dates that those projects will be completed.

- **Schedule for Johnson City's Project**

Outline the sequence of activities, including time frames, and a description of each activity.

- **Submittal**

Firms shall submit two (2) copies and (1) original of each proposal in a sealed envelope plainly identified in the upper left hand corner with the firm or person's complete name and address and in the lower left hand corner "**RFP 6045 – Acoustic Bat Survey Services**".

Responses must be received by the Director of Purchasing, PO Box 2150 (37605) or 209 Water Street (37601), Johnson City, TN on or before **4:00 PM, July 1, 2016**. A list of respondents will be available at that time. Late submittals will not be considered. Telephone or facsimile offers will not be accepted.

Proposals shall be open for review, acceptance, and contract award for a period of ninety (90) days following closing date for submittal.

No contract entered into as the result of Proposer's response to this request or any Proposer's response may be subject to any type of non-disclosure agreement.

Proposals should be prepared simply and economically, providing a straightforward, concise description of Proposer's capabilities to satisfy the requirements of this RFP. Emphasis should be on completeness and clarity of content.

The City is not liable for any costs incurred by Proposer prior to issuance of a contract.

Proposals may be withdrawn upon written request received from Proposer prior to the time fixed for receipt.

Direct any questions concerning this request for proposal to:

Brandon Pachol
Civil Engineer III
City of Johnson City
601 East Main Street
P.O. Box 2150
Johnson City, TN 37605
Telephone number: 423-232-1967
bpachol@johnsoncitytn.org

IV. SELECTION PROCESS

A review committee will evaluate proposals considering the following factors:

1. The experience of the Consultant and the employees that are assigned to the project,
2. The Consultant's current work load,
3. The Consultant's ability to complete past client's projects within the agreed deadline,
4. The Consultant's ability to complete past client's projects within the agreed services fee,
5. The opinion of the references will be considered.

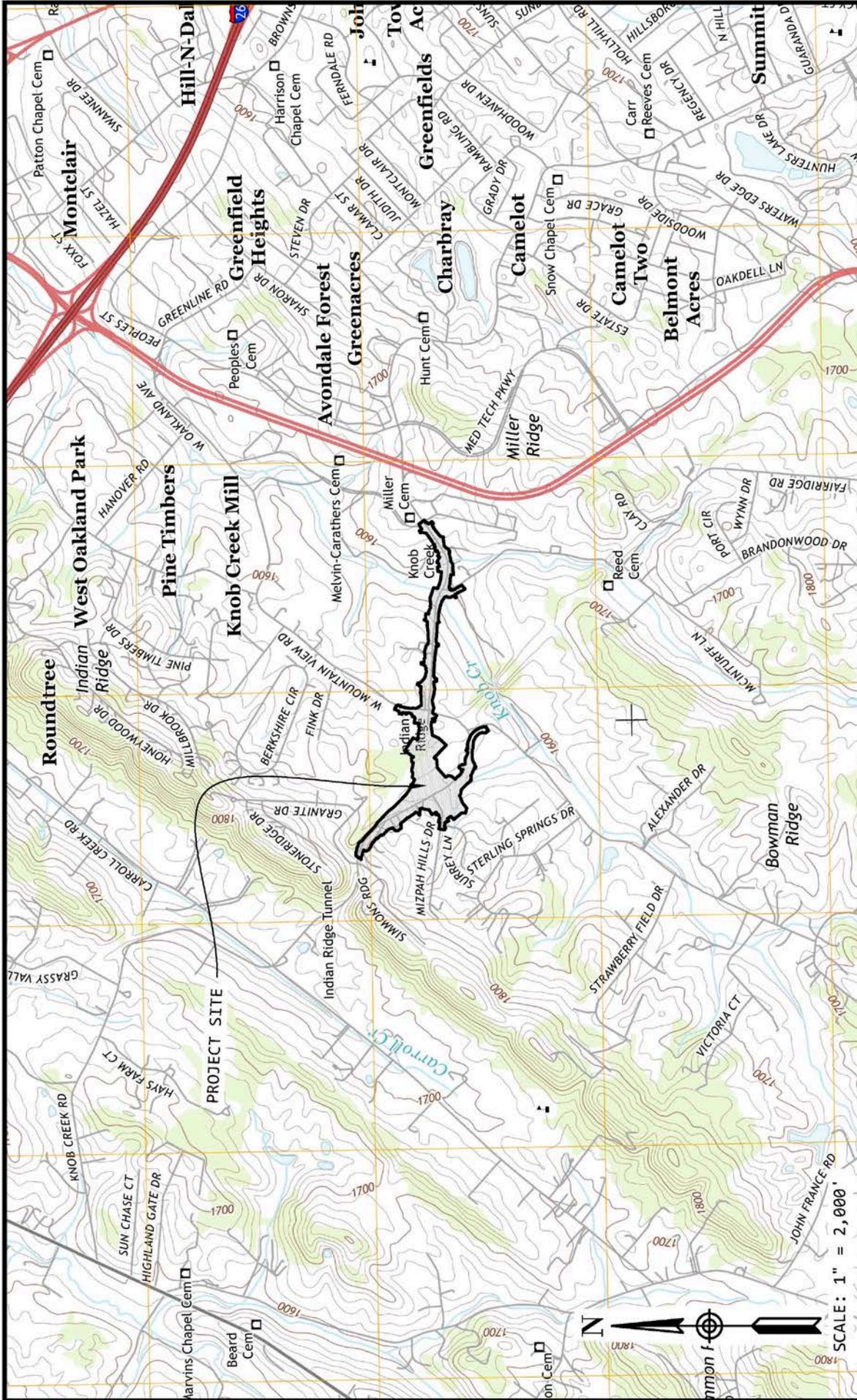
If the review team is not familiar with a Consultant, then an interview may be desired. If the review team is familiar with the Consultant through prior interviews or work performed on prior and current City projects, then interviews with candidates may not be necessary.

City staff will choose the best rated consultant to begin negotiating a fee with. After an agreement on the fee amount is reached, the recommendation will be approved in accordance with the City of Johnson City's procurement procedures.

The City reserves the right to reject any or all proposals and to waive informalities, irregularities, and technicalities in the proposal process.

The City may negotiate separately with any source in any manner necessary to arrive at a contract agreement that is in the best interest of the City.

V. LOCATION MAP



SHEET
1

**KNOB CREEK ROAD
CSX RAILROAD OVERPASS**

**CITY OF JOHNSON CITY
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION**



SCALE: 1" = 2,000'

VI. CONTRACT AND INSURANCE DOCUMENTATION

THE CONTENTS WITHIN THIS SECTION ARE SPECIFIC TO CONTRACTING WITH THE CITY OF JOHNSON CITY.

- **Insurance**

The attached Insurance Checklist (page 23, including a section for both the Insurance Agent and Contractor to fill out) and General Contract Form (page 19, must be completed and returned with the proposal package. Successful vendor shall provide insurance certificate, as specified, prior to contract award.

The successful vendor must carry insurance as specified during the length of this contract and must submit a Certificate within five (5) business days from date of request.

- **Rights and Options of the City of Johnson City:**

The City reserves the following rights and options:

- Determine those proposers who are most qualified
- Reject any or all proposals for any reason, at its sole discretion.
- Supplement, amend, or otherwise modify this RFP.
- Cancel this RFP with or without the submission of another RFP.
- Issue additional solicitations for information and proposals, and conduct investigations with respect to the qualifications of each respondent.

- **Proprietary/Confidential Information**

Proposers are hereby notified that all information submitted as part of, or in support of, proposals will be available for public inspection after opening of proposals, in compliance with City Policy & Tennessee Statute.

VII. DOCUMENTS TO INCLUDE IN THE SUBMITTAL

Please read each of the following documents, and follow any instructions that are included in them. Provide the information that is requested and sign the documents that need signatures.

*** The following documents shall be included within the submittal ***

- Page 10:
PROPOSAL AGREEMENT FORM
- Page 11 to 14:
REQUIREMENTS FOR BIDS, REQUESTS FOR PROPOSALS, AND CONTRACTS BETWEEN THE CITY OF JOHNSON CITY AND OTHER PARTIES
- Page 15:
ACKNOWLEDGEMENT OF REQUIREMENTS FOR BIDS, REQUESTS FOR PROPOSALS, AND CONTRACTS BETWEEN THE CITY OF JOHNSON CITY AND OTHER PARTIES
- Page 16 to 18:
SEALED SOLICITATION GENERAL TERMS AND CONDITIONS
- Page 19 to 22:
GENERAL CONTRACT FORM
- Page 23:
INSURANCE CHECK LIST
- Page 24:
DRUG FREE WORKPLACE
- Page 25:
DRUG-FREE WORKPLACE AFFIDAVIT

Acoustic Bat Survey Services – RFP# 6045

• **PROPOSAL AGREEMENT**

In compliance with the Request for Proposal, in consideration of the detailed description attached hereto; and subject to all conditions thereof, the undersigned agrees, if this Request for Proposal be accepted, that they will function as an independent contractor and agrees to indemnify and hold harmless The City of Johnson City, its Board Members, employees, officers, and agents from any and all claims or demands that may arise out of or relate to its duties contracted for pursuant to goods and/or service.

Name of Firm

Address

City State Zip

Authorized Representative / Signature

Phone Fax Number

E-Mail Address

Date

COMPLETE AND SUBMIT WITH BID/PROPOSAL

- **REQUIREMENTS FOR BIDS, REQUESTS FOR PROPOSALS, AND CONTRACTS BETWEEN THE CITY OF JOHNSON CITY AND OTHER PARTIES**

The City of Johnson City has established the following requirements for use in all bids and contracts between the City and any other person or entity. The following list is mandatory and modifies any bid, contract, or request for proposal, or conditions applicable to, signed by, or let by the City, notwithstanding anything contained in any particular conditions, contract, request for proposal, or bid to the contrary.

In general, the following provisions apply to all such contracts, bids, requests for proposals, contracts requiring bids, and bids containing contracts:

1. The City of Johnson City shall not answer to any contracting party for the furnishing of public records to a person requesting such in accordance with Tennessee law.
2. The City, while it may designate in writing a representative on a particular project, shall only be bound by a majority vote of the Board of Commissioners or by the limited authority delegated to the City Manager pursuant to City Ordinance. No personal representative of the City assigned to a particular project may bind it in excess of the dollar amounts granted to the City Manager by Ordinance, and no personal representative assigned to a particular project may bind the City for an amount equal to or less than the dollar amounts granted to the City Manager by Ordinance without the City Manager's approval.
3. The City shall not in any event waive or limit any claims for damages including but not limited to consequential damages in any contract for any reason or purpose.
4. No decision of an architect, engineer, or personal representative of the City shall be final and binding on the City, unless the City so agrees in any dispute with any party including but not limited to an architect, a contractor, a subcontractor, an engineer, etc. If the City agrees to be bound pertaining to a dispute, then the monetary limits contained in the City's ordinances regarding the authority of the City Manager shall prevail, and any amounts exceeding the authority of the City Manager shall be referred to the Board of Commissioners for their consideration.
5. The City shall not participate in any mediation or arbitration regarding any agreement to which it is a party, and all matters left unresolved between the City and any other party, person, or entity shall be resolved in a court of competent jurisdiction in either Washington County, Tennessee, or in Federal District Court in Greeneville, Tennessee.

6. No party or other entity shall file a lien of any nature whatsoever against City property, real, personal, or mixed, no matter where that property is located. Should a party or entity contracting with the City or acting as a subcontractor or subsubcontractor file a lien against any property, real, personal, or mixed, owned by the City, then that party or entity shall take immediate steps at its own cost and expense to remove said lien, or the City shall take such steps as it deems necessary and hold the other party or entity liable for any costs and attorneys' fees associated with the lifting of said lien.
7. The City shall exercise its sole discretion before agreeing to any assignments of any contracts or subcontracts regarding any project in which the City is involved. No contract with the City shall be assignable without the City's sole, discretionary, absolute consent.
8. The City shall not be required to supply any information regarding its title to any property in which it has an interest for any purposes regarding the filing of liens.
9. The City shall not waive any claims it has in the making of final payment in any project in which it is involved. The City shall have the right to terminate any agreement to which this document is attached at any time in its sole discretion with or without cause. In the event the City terminates with or without cause any agreement to which this document is attached, then in such event the City shall be liable only for the actual work and costs that have accrued at or before the date of the City's termination. In no event shall the City be liable for lost profits, consequential damages or incidental damages in the event it terminates a contract with or without cause.
10. Except to the extent allowed by law, the City shall not indemnify and hold harmless any other party, entity, person, their agents, employees, or anyone else in the world for any reason whatsoever.
11. The City shall not waive the rights of subrogation of its insurers or itself for any purpose whatsoever, and the City shall not cause any such endorsements to be placed on any policies to which it is a party.
12. Unless the City elects otherwise, the City shall not provide any "builders' risk" or an "all-risk" or equivalent policy for any reason whatsoever for any project in which the City has an interest, and the contractor or other such party shall assume this responsibility. That builder's risk policy provided by the contractor or other such interested party shall name the City as an additional insured. The City shall not provide boiler and machinery insurance, but shall require such insurance as applicable, depending on the parameters of whatever project is involved. The cost of boiler and machinery insurance shall be borne by the appropriate contractor, subcontractor, or other interested party. The City shall not insure the

interests of any other person or entity, nor shall the City add any other person or entity as an additional insured to any of its policies.

13. The City shall not waive any rights regarding the loss of use of the City's property.
14. As to acts or failures to act or any causes of action by any party to a contract, whether that party be the architect, owner, contractor, City, etc., a cause of action shall accrue according to Tennessee law. No contract provision shall shorten the statutes of limitations, statutes of repose, or the accrual of any causes of action which the City might have against another party or entity. No contract provision shall waive any warranties, express or implied, nor shall any contract limit the standard of care for any particular service or undertaking to that of the locality where those services or undertakings are performed.
15. Any interest to be paid by the City of Johnson City for late payments shall be at the rate of interest at which the City pays on its most recently issued bonds.
16. The City reserves to itself the right to approve the use of any tests, including but not limited to any borings, test pits, geotechnical work, environmental tests, and the like in its own sole discretion. All design professionals, consultants, subcontractors, or the like shall be duly licensed in the State of Tennessee, if licensure in the State of Tennessee is required for the work to be performed by such design professional, consultants, or subcontractors.
17. Notwithstanding any applicable choice of law or conflict of law provisions or decisions, the law of the State of Tennessee shall govern all contracts to which this document is attached.
18. The City of Johnson City shall not provide any legal advice, legal services, surveys, or procure the same for any other party.
19. Upon payment for services as rendered, all design documents and all instruments of service created by design professionals, including but not limited to architects, landscape architects, engineers, etc., shall become the property of the City of Johnson City, Tennessee. The City of Johnson City shall be allowed to use all design documents and instruments of service, including but not limited to bid drawings, shop drawings, reports, specifications, cost estimates, schematic designs, construction designs, and the like for future additions or alterations to the current project or for use in other projects. Any use of the aforementioned designs and construction documents shall be at the City's sole risk and without liability to the design professional. The design professional's name and seal will be removed from all such design documents prior to the City's use thereof.

20. No person or entity shall respond to a request for bid or request for proposal with any terms or conditions that might change, alter, amend, or differ with the specifications, terms, or conditions originally provided by the City in its initial request for bids or proposals.
21. The City, as the owner of real property that is the subject of or in any way connected to any bid, request for proposal, or contract, hereby grants to the successful bidder/proposer/contractor the general management of the real property during the time that work is being performed, and the City agrees to transfer information specified in OSHA regulations at 29 CFR §1926.1203(h)(1), so that TOSHA/OSHA shall treat the successful bidder/proposer/contractor as the host employer when working in confined spaces. This paragraph applies only to those areas where the successful bidder/proposer/contractor has access to and performs work within confined spaces as defined in federal OSHA regulations. The successful bidder shall comply with all federal OSHA and state TOSHA regulations, including those regarding confined spaces.

January 6, 2016

- **ACKNOWLEDGEMENT OF REQUIREMENTS FOR BIDS, REQUESTS FOR ROPOSALS, AND CONTRACTS BETWEEN THE CITY OF JOHNSON CITY AND OTHER PARTIES**

PROJECT: KNOB CREEK ROAD – CSX RAILROAD OVERPASS PROJECT,
NEAR THE INTERSECTION OF KNOB CREEK ROAD AND WEST
MOUNTAINVIEW ROAD, JOHNSON CITY, TN

RFP # 6045 - Acoustic Bat Survey Services

NAME OF CONSULTANT: _____

The Undersigned hereby acknowledges that the Consultant has carefully reviewed the Requirements for Bids, Requests for Proposals, and Contracts between the City of Johnson City and Other Parties, and understands that this document is considered part of the Contract Documents and all Proposals shall be conditioned by the document.

Name of & Title of Signer

(Print or Type): _____

Signature: _____ Date: _____

COMPLETE AND SUBMIT WITH BID/PROPOSAL



CITY OF JOHNSON CITY, TENNESSEE
<http://www.johnsoncitytn.org/purchasing>

• **SEALED SOLICITATION GENERAL
TERMS AND CONDITIONS
(Read Carefully)**

1. ACCEPTANCE, REJECTION AND POSTPONEMENT

Issuance of a bid/rfp/rfq does not commit the City to make an award. The City reserves the right to postpone or reject any or all bids/rfp's/rfq', to waive informalities and to accept the bid/rfp judged to be in the best interest of the City.

2. ADDENDA

Addendum's will be issued to all known interested parties and posted on the City's website (listed above). All addenda issued shall become part of the solicitation documents. It is the vendor's responsibility to determine and acknowledge any or all addenda's issued for a solicitation. No addenda will be issued less than two (2) working days prior to the solicitation opening as per TCA, Title 12, Chapter 4, Part 1, as amended

3. AWARD

An award, if made, shall be to the lowest responsible, responsive bidder(s) or best proposal meeting quality and performance standards as described in the solicitation documents and whose bid/rfp is determined to be in the best interest of the City.

4. AWARD PERIOD

The City shall have 60 days to issue a contract. Any contract past that period must be mutually agreed upon by both parties.

5. BID TABULATIONS/RFP/RFQ RESPONSES

Bid tabulations and RFP/RFQ respondent's lists will be posted and available the next business day on our above website. Select "awarded/opened solicitations".

6. BRAND NAMES

By referencing a brand name or equal, the City intends to establish a minimum level of quality by which alternate offers can be judged. If an alternate is offered, the vendor must include complete descriptive literature and specifications that clearly describe the item and how it differs from the referenced item. Vendor reference to literature previously submitted will not satisfy this provision. Unless specified otherwise, it is understood that the referenced product will be furnished. The City alone will determine whether an alternate is equivalent and meets the standards of quality and performance for the City's use. A sample or demonstration may be required at the expense of the vendor.

7. CONDITION STANDARDS

It is understood and agreed that any item offered or shipped as a result of this solicitation shall be new and unused and the manufacturer's latest model unless otherwise called for in the solicitation.

8. CONSTRUCTION DOCUMENTS

If a fee is required for bid documents then only those bidders of record with the issuing office are eligible to bid.

9. COOPERATIVE PURCHASING:

Bidders/Proposers are to indicate whether it is permissible for other governments in Tennessee to purchase these items or services at the same price. Freight charges can be adjusted to reflect differences in delivery costs.

10. DEFAULT

In case of contractor default or failure to provide material or service according to the solicitations, the City may cancel this contract and acquire from another source and may recover any excess cost by (1) invoice; (2) deduction from an unpaid balance due; (3) collection against the bid and/or performance bond; or (4) a combination of the aforementioned remedies or other remedies provided by law. All costs associated with default will be borne by the contractor. The City reserves the right to remove a company in default from the active vendor list for a time period to be determined by the Director of Purchasing.

11. DELIVERY

Delivery/completion schedule must be clearly identified and realistically stated, as this may be a determining factor in the award.

12. DISCOUNT AND PAYMENT

Payment terms are Net 30 following receipt of the material or service and a correct invoice unless otherwise stated in the solicitation document. Discounts for prompt payment will not be considered in the bid evaluation for award. Partial payment will be allowed only if addressed in the solicitation.

13. EQUAL OPPORTUNITY

It is the policy of the City of Johnson City to ensure compliance with Title VI of the Civil Rights Act of 1964; 49 CFR, Part 21; related statutes and regulations to that end that no person shall be excluded from participation in or be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or any other funding source on the grounds of race, color, sex, national origin, or ancestry. By virtue of submitting a response to this solicitation, vendors agree to comply with the same non-discrimination policy.

14. EVALUATION

Bids/RFP's/RFQ's will be evaluated according to the criteria set forth in the document with the degree of importance determined by the City.

15. EXAMINATION OF BIDS/RFP'S/RFQ'S

Bids/RFP's/RFQ's and associated documents may be examined at the opening. They are closed for review and inspection during the evaluation period prior to award.

16. FOB (FREE-ON-BOARD) POINT

All prices quoted shall be FOB delivered to the using department, City of Johnson City, TN unless otherwise stated in the solicitation document. Risk of loss and/or damage shall be upon the Seller until such time as the goods have been physically delivered and accepted by the City.

17. INDEMNIFICATION

The vendor shall guarantee and certify by submitting a response to this solicitation that if successful, they shall indemnify and defend the City against any and all claims or legal actions arising as a result of their performance of the contract, whether or not such claims relate to damages or alleged damages sustained by physical injury to contractors personnel, subcontractors, city employees or other

persons, or against any lawsuits arising from alleged or actual patent infringements, and shall hold the City, its various departments, employees, and any and all persons or entities acting on its behalf harmless from the same.

18. INSPECTION

All supplies or materials purchased as a result of this solicitation are subject to inspection and rejection by the City. Rejected materials will be returned at the vendor's expense.

19. INSURANCE

The contractor shall maintain, at their expense, such insurance as required by the solicitation. Such insurance shall protect the City for claims of damages which may arise during operations under this contract whether such operations be by the Contractor or by any subcontractor or anyone directly or indirectly employed by either of them. Any required insurances shall be maintained for the term of the contract and beyond the term of the contract when so required in the solicitation.

20. LICENSES, FEES, PERMITS

The contractor is responsible for furnishing the proper licenses, fees, and permits required by law to do business with the City of Johnson City in completion of the project. All work shall be done in accordance with the latest building codes, state and federal laws relative to public works contracts.

21. MULTIPLE ITEM BIDS

The City will determine the successful bidder(s) either on the basis of the individual line items or the total of all items. ALL OR NONE bids must be clearly identified on the bid form and will be considered only if in the City's best interest.

22. NON-COLLUSION AGREEMENT

By submitting this solicitation, the agent representing all officers, partners, owners, representatives, employees or interested parties of the vendor's firm certifies to the best of his/her knowledge and belief this bid/proposal to the City of Johnson City, Tennessee has not been prepared in collusion with any other seller, proprietor, or manufacturer of similar products or services. The agent also certifies that the prices, terms and conditions of said bid/proposal have been arrived at independently and have not been communicated by the submitter, nor by any of the aforementioned firm associate to any other seller, proprietor, or manufacturer of similar products or services and will not be communicated prior to the official opening of said solicitation. The agent further states that no official or employee of the City of Johnson City has promised any personal, financial or other beneficial interest, either directly or indirectly, in order to influence award of this solicitation.

23. PARTS AND SERVICE

The successful vendor must be able to provide adequate parts and service for all items awarded. Service location and ability to perform may be a consideration in the award.

24. PENALTIES

Vendors may be removed from our active vendor system for any of the following:

- ◆ Failure to respond to three consecutive solicitations
- ◆ Failure to meet delivery requirements
- ◆ Failure to furnish items as a result of a solicitation
- ◆ Failure to provide service or material as a result of the award
- ◆ Offers of gratuities or favors to any City employee

25. PRE-BID MEETING ATTENDANCE

If attendance is mandatory then only those firms whose names are listed on the pre-bid attendance roster are eligible to submit a solicitation.

26. PRICING

All pricing must appear in the spaces provided on the city's form (if applicable) and be in ink or typed. Changes or corrections by the bidder/proposer must be initialed in ink by the person signing. No corrections may be made in pencil. Unit prices will prevail in case of an extension error. The City will correct math computation errors (unit price & totals). No bid may be altered or amended after bid opening time. Obvious mistakes will be given special consideration upon receipt of written request and full disclosure or evidence regarding pricing error.

27. PROPRIETARY/CONFIDENTIAL INFORMATION

Vendors are hereby notified that all information submitted as part of, or in support of, bids/proposals will be available for public inspection after opening of such bids/proposals, in compliance with Tennessee Statutes.

28. PROTEST PROCEDURE

Any protest to the award of a contract by the City of Johnson City shall be submitted in writing to the Director of Purchasing with a copy to the City Manager and delivered not later than seven (7) calendar days from the date of the city's award decision. Such protest must include a protest bond in the amount of \$350 (cashier's check payable to the City of Johnson City or Cash) submitted to the Purchasing Director before the City will consider the protest. This protest bond will serve as a guarantee by the protester of the validity and accuracy of the protest. If the protest is denied by the City Manager the bond will be retained to cover costs associated with the protest.

29. QUESTIONS

Questions must be received by the City at least four (4) working days prior to the scheduled opening. No oral interpretations or instructions given by any city employee or any other person shall apply. Changes relative to any solicitation will be in writing, in the form of an addendum. ,

30. SAFETY STANDARDS

All manufactured items and fabricated assemblies shall comply with applicable requirements of OSHA/TOSHA and any related standards thereto.

31. SAMPLES

Samples will be furnished at no charge to the City. They will remain in the Purchasing Department for testing and evaluation until an award is made. Vendors are responsible for picking up their samples within two (2) weeks after the award. Samples not collected after that time shall become the property of the City. Samples from the successful vendor will be held until delivery is received and accepted as being equal to the sample.

32. SEALED SOLICITATION OPENINGS

Bids/RFP's/RFQ'S (paper & electronic) will be read aloud at the specified date and time as stated in the document. All openings are public meetings. All bidders/proposers and interested persons are invited to attend. The City reserves the right to postpone any solicitation opening under circumstances warranting such action, including but not limited to instances when the City receives fewer than two responses.

33. SIGNATURE ON BIDS

When submitting a bid, other than electronically, the bid form must contain the full name and address of the company and be signed in Ink by a person authorized to bind that company to a contract. Submission of an electronic solicitation constitutes acceptance of all terms and conditions. Unsigned paper bids will not be considered, read or tabulated. They may not be signed during or after the bid opening, even if a representative is present.

34. SUBMITTAL OF SEALED BIDS/RFP'S/RFQ'S

Any forms furnished by the city must be completed and returned as specified in the solicitation, otherwise response will be considered as non-responsive. TELEPHONE, FACSIMILE OR E-MAIL RESPONSES WILL NOT BE ACCEPTED. Electronic receipt of bids/proposals is acceptable for those posted at: <https://purchasing.johnsoncitytn.org/bsa/>. **Paper bids shall be sealed in an envelope and may be required to include one (1) electronic (CD or flashdrive) copy of the entire submittal. The electronic version shall be an exact duplicate of the original, and the electronic version will become the official document.** No solicitation received after closing time shall be considered. The official time for paper submittals will be that of the date and time clock in the Purchasing Department. For electronic bids the official time is that posted on the website. Late submittals will not be accepted. The City of Johnson City shall not be responsible for technical difficulties experienced by vendors trying to register or submit their bid/rfp response electronically less than one hour prior to the bid/rfp opening time. If not offering a solicitation response, the vendor is encouraged to complete the "Statement of Decline" form and return prior to the opening.

35. TAXES

The City is exempt from Federal excise tax, State, and city sales tax. Contractors are not exempt from the use tax on materials and supplies used in the production of an item or in the performance of a repair or construction contract. Tax exemption certificates will be furnished upon request.

36. TERM OF CONTRACT

Unless otherwise stated, the City reserves the right to purchase like items at the same contract price for a period of one year from the award date subject to agreement of both parties. The City may cancel any contract for cause following written notification of intent.

37. WARRANTY

Unless otherwise specified by the City, all items shall be guaranteed for a minimum period of one (1) year against defects in material and workmanship.

August 14, 2014

SUBMIT WITH BID/PROPOSAL

- **GENERAL CONTRACT FORM**

The General Contract Form is included in every solicitation requiring insurance. The general requirements of the contract form are supplemented by items checked on the **Insurance Checklist that identify specific requirements for the bid or project.**

INSURANCE

Review this section carefully with your insurance agent or broker prior to submitting a bid or proposal. See Insurance Checklist (part of the Bid Forms) for specific coverage applicable to this contract. The term “Contract” as used in this section shall mean the Agreement covering the work that is entered into between the City of Johnson City, Tennessee and the Contractor.

1. General Insurance Requirements:

1.1 The Contractor shall not start work under this contract until the Contractor has obtained at its own expense all of the insurance called for hereunder and such insurance has been approved by the City; nor shall the Contractor allow any subcontractor to start work on any subcontract until all insurance required of the subcontractor has been so obtained and approved by the Contractor. Approval of insurance required of the Contractor will be granted only after submission to the Director of Purchasing of original, signed Certificate(s) of Insurance, General Contract Form, and Insurance Checklist or, alternately, at the City’s request, certified copies of the required insurance policies.

1.2 No acceptance and/or approval of any insurance by the City shall be construed as relieving or excusing the Contractor, or the surety, or its bond, from any liability or obligation imposed upon either or both of them by the provisions of the Contract Documents.

1.3 The City of Johnson City (including its elected and appointed officials, agents, and employees) is to be named as an additional insured under all coverage except Worker’s Compensation, Automobile Liability, and Professional Liability and the Certificate of Insurance or the certified policy, if requested, must so state. Coverage afforded under this paragraph shall be primary as respects the City, its elected and appointed officials, agents and employees. The following definition of the term “City” applies to all policies issued under the contract:

“The City of Johnson City, Tennessee together with all of its various departments, bureaus, and agencies, as well as any affiliated or subsidiary board, committee, or authority, including but not limited to the Johnson City Public School System.”

1.4 The contractor shall provide insurance as specified in the Insurance Checklist contained in this document.

1.5 The Contractor covenants to save, defend, hold harmless and indemnify the City of Johnson City, Tennessee together with its various departments, elected or appointed officials, employees, officers, counsel, agents, and any and all other persons or entities

acting on behalf of the same (collectively the City) from and against any and all claims of any sort based upon any theory of liability whatsoever, for any and all harm, loss, damage, injury, cost (including court cost and attorney fees) charges, or other liability of any nature whatsoever, however caused, resulting from or arising out of or in any way connected with the contractors performance or non-performance of the terms of the contract documents or its obligations under the contract based upon any theory of liability whatsoever, including claims brought by third persons, and further covenants to discharge all of the aforesaid persons and entities and forever hold them harmless from the same. The foregoing obligation to indemnify and defend shall continue in full force and effect after the aforesaid contractor completes all of the work required under the contract, until such time as the applicable statutes of limitation or repose have expired.

1.6 The Contractor shall be responsible for the work performed under the Contract Documents and every part thereof, and for all materials, tools, equipment, appliances, and property of any description used in connection with the work. The Contractor assumes all risks for direct and indirect damage or injury to the property or persons used or employed on or in connection with the work contracted for, and of all damage or injury to any person or property wherever located, resulting from any action, omission, commission or operation under the Contract, or in connection in any way whatsoever with the contracted work, until final acceptance of the work by the City.

1.7 Insurance coverage required in these specifications shall be in force throughout the Contract Term. If the Contractor fails to provide acceptable evidence of current insurance within ten days of written notice at any time during the Contract Term, the City shall have absolute right to terminate the Contract without any further obligation to the Contractor and the Contractor shall be liable to the City for the entire additional cost of procuring performance by another vendor and the cost of performing the incomplete portion of the Contract at time of termination. **Contractor** is required to provide the City with notice of cancellation, non-renewal, or material change in coverage at least thirty (30) days prior to cancellation, non-renewal, or material change in coverage.”

1.8 Contractual and other liability insurance provided under this Contract shall not contain a supervision, inspection or engineering services exclusion that would preclude the City from supervising or inspecting the project as to the end result. The Contractor shall assume all on-the-job responsibilities as to the control of persons directly employed by it and of the subcontractors and any persons employed by the subcontractor.

1.9 Nothing contained in the specifications shall be construed as creating any contractual relationship between any subcontractor and the City. The Contractor shall be as fully responsible to the City for acts and omissions of the subcontractors and of persons employed by them as it is for acts and omissions of persons directly employed by the Contractor.

1.10 Precaution shall be exercised by the Contractor at all times for the protection of persons (including employees) and property. All existing structures, utilities, roads, services, trees and shrubbery shall be protected against damage or interruption of service at all times by the Contractor and its subcontractors during the term of the Contract, and the Contractor shall be held responsible for any damage to property occurring by reason of its operation on the property.

1.11 If a Contractor can not meet the insurance requirements contained in a bid, proposal, or project description, alternate insurance coverage may be considered. Written requests for consideration of alternate coverage must be received by the Director of Purchasing at least ten working days prior to the date set for receipt of bids or proposals. If the City denies the request for alternate coverage, the specified coverage will be required to be submitted. If the City permits alternate coverage, an amendment to the Insurance Requirement will be prepared and distributed prior to the time and date set for receipt of bids or proposals.

1.12 All required insurance coverage must be acquired from insurers authorized to do business in the State of Tennessee, and acceptable to the City. The insurers must also have policyholders' rating of "B++" or better, and a financial size of "Class V" or better in the latest edition of Best's Insurance Reports, unless the City grants specific approval for an exception in the same manner as described in 1.11 above.

1.13 The City may consider deductible amounts as part of its review of financial stability. The Contractor shall assume all deductibles.

2. Contractor's Insurance – Occurrence Basis:

2.1 The Contractor shall purchase the following insurance coverage, including the terms, provisions and limits shown in the Checklist:

- **Commercial General Liability** – The Commercial General Liability policy shall include any or all of the following as indicated on the Checklist:
 - i. General aggregate limit is to apply per project;
 - ii. Premises/Operations;
 - iii. Action of Independent Contractors;
 - iv. Contractual Liability including protection for the Contractor from claims arising out of liability assumed under this contract;
 - v. Personal Injury Liability including coverage for offenses related to employment;
 - vi. Explosion, Collapse, or Underground (XCU) hazards.
- **Professional Liability/Miscellaneous Errors and Omissions** insurance which will pay for injuries arising out of errors or omissions in the rendering, or failure to render, professional services under the contract, in the amount shown in the Checklist.
- **Business Automobile Liability** including coverage for any owned, hired, or non-owned motor vehicles, Uninsured Motorists insurance, and Automobile Contractual Liability.
- **Worker's Compensation** – statutory benefits as required by the State of Tennessee, or other laws as required by labor union agreements, including standard Other States coverage; Employers' Liability coverage.

3. Commercial General or other Liability Insurance – Claims-made Basis:

If Commercial General or other liability insurance purchased by the Contractor has been issued on a claims-made basis, the Contractor must comply with the following additional conditions. The limits of liability and the extensions to be included as described in the Checklist remain the same. The Contractor must either:

- i. Agree to provide certificates of insurance evidencing the above coverage for a period of three years for Professional Liability; two years for CGL and other Liability, after final payment for the contract. Such certificates shall evidence a retroactive date, no later than the beginning of the Contractors or subcontractors' work under this contract, or
- ii. Purchase an extended (minimum three years for Professional Liability; two years for CGL and other Liability) reporting period endorsement for the policy or policies in force during the term of this contract and evidence the purchase of this extended reporting period endorsement by means of a certificate of insurance or a copy of the endorsement itself.

4. Alternative Coverage (Self Insurance)

Notwithstanding any of the above, the Contractor may satisfy its obligations under this section by means of self-insurance for all or any part of the insurance required, provided that the alternative coverage is acceptable to the City.

5. Limits of Liability Coverage

Specific limits of liability coverage on the Insurance Checklist may be adjusted according to project risk if the adjustment is deemed appropriate and the amended amount is approved by the City Manager.

6. Verification of Compliance

I have read this General Contract Form and agree to all the terms and conditions contained therein.

Contractor's Name: _____

EIN or SSN: _____

Signed by: _____

Title: _____

Date: _____

This form and the Insurance Checklist must be completed and returned with Certificate of Insurance, as specified, prior to contract award.

• INSURANCE CHECKLIST

(Public Works – Acoustic Bat Survey)

REQUIRED COVERAGE (marked by "x")

MINIMUM LIMITS

- 1. Worker's Compensation (proprietor/partners/executive officers exclusion not allowed) Statutory limits of Tennessee and Employer's Liability \$100,000/accident, \$100,000/disease, \$500,000/disease policy limit
- 2. Commercial General Liability (including Premises/Operations) \$1,000,000 CSL BI/PD each occurrence, \$1 Million annual aggregate
- 3. Automobile Liability & Owned/Hired/Non-Owned Vehicles \$500,000 BI/PD each accident, Uninsured Motorist
- 4. Independent Contractors \$1,000,000 CSL BI/PD each occurrence, \$1 Million annual aggregate
- 5. Products/Completed Operations \$1,000,000 CSL BI/PD each occurrence, \$1 Million annual aggregate
- 6. Contractual Liability \$1,000,000 CSL BI/PD each occurrence, \$1 Million annual aggregate
- 7. Personal and Advertising Injury Liability \$1,000,000 each offense, \$1 Million annual aggregate
- 8. Umbrella Liability \$1 Million Bodily Injury, Property Damage and Personal Injury
- 9. Per Project Aggregate
- 10. Professional Liability
 - a. Architects and Engineers \$1 Million per occurrence/claim
 - b. Asbestos Removal Liability \$2 Million per occurrence/claim
 - c. Medical Malpractice \$1 Million per occurrence/claim
 - d. Medical Professional Liability \$1 Million per occurrence/claim
- 11. Miscellaneous E & O \$1 Million per occurrence/claim
- 12. Motor Carrier Act End. (MCS-90) \$1 Million BI/PD each accident, Uninsured Motorist
- 13. Motor Cargo Insurance
- 14. Garage Liability \$1 Million Bodily Injury, Property Damage per occurrence
- 15. Garagekeepers Liability \$500,000 Comprehensive, \$500,000 Collision
- 16. Inland Marine-Bailee's Insurance \$ _____
- 17. Moving and Rigging Floater Endorsement to CGL
- 18. Dishonesty Bond \$ _____
- 19. Builder's Risk/Installation Floater Provide coverage in the full amount of contract
- 20. XCU Coverage Endorsement to CGL
- 21. Carrier Rating shall be Best's Rating of B++V or better or its equivalent
- 22. Notice of cancellation, non-renewal or material change in coverage shall be provided to City at least **30 days** prior to action. Worker's Compensation and/or non-payment of premium - notification may be **10 days** prior to action.
- 23. The City of Johnson City shall be named as Additional Insured on all policies except Worker's Compensation, Auto and Professional Liability. **Per Acord 25 (2009/01), policies must be endorsed; please submit copy of endorsement.**
(Cert. Holder: City of Johnson City, Attn: Purchasing, P.O. Box 2150, Johnson City, TN 37605. Email: purchasing@johnsoncitytn.org)
- 24. Certificate of Insurance shall show project number or other contract identifier used by the City.
- 25. OTHER INSURANCE REQUIRED: _____

INSURANCE AGENT'S STATEMENT:

I have reviewed the above requirements with the bidder named below. The bidder has coverage with this agency for all of the areas marked with the exception of the following numbers:

Comments: _____

- Is Professional Liability excluded under General Liability? Yes _____ No _____
- Is Contractual Liability excluded under Comm. General Liability? Yes _____ No _____
- Is Independent Contractors excluded under Comm. General Liability? Yes _____ No _____

Carrier ratings: Insurer A _____; Insurer B _____; Insurer C _____; Insurer D _____

AGENCY NAME: _____ AUTHORIZED SIGNATURE: _____

Date: _____

CONTRACTOR'S STATEMENT:

I have reviewed the above requirements with my insurance agent(s) and, if awarded a contract, will provide all coverage marked.

CONTRACTOR'S NAME: _____ AUTHORIZED SIGNATURE: _____

Date: _____

Bid Number: 6045

Bid or Project Name: Knob Creek Road CSX Railroad Overpass – Acoustic Bat Survey Services

This form and the General Contract Form must be signed and returned with the bid package. The Certificate of Insurance must be provided to Purchasing prior to contract award.

- **DRUG FREE WORKPLACE**

All vendors with five (5) or more employees must execute the attached Drug Free Workplace Affidavit to verify compliance with TCA 50-9-113 and return same with response. Failure to comply with this requirement will declare that submittal non-responsive.

City of Johnson City, Tennessee – Policy No. HR-131

SECTION I – PURPOSE OF THE DRUG & ALCOHOL TESTING PROGRAM

The City of Johnson City recognizes its responsibility to provide safe and efficient operations for our employees, our citizens and the general public. Our commitment to provide safe and efficient operations is shown by the implementation of programs and procedures which ensure compliance with appropriate safety measures, as well as the letter and intent of all applicable laws and regulations. There is sufficient evidence to conclude that the use of illegal drug/alcohol; drug/alcohol dependence and drug/alcohol abuse seriously impairs an employee's performance and general physical and mental health. The illegal possession and use of drugs, alcohol and/or narcotics by employees of the City is a crime in this jurisdiction and is clearly unacceptable. Therefore, the City of Johnson City has adopted this written policy to ensure an employee's fitness for duty as a condition of employment; to ensure the drug tests and alcohol tests are conducted on safety-sensitive positions in the categories of: pre-employment, random testing, suspicion testing, and return-to-duty testing.

To comply with TCA Title 50 Chapter 9 Part 1, all bidders and/or proposers of service to the City must have a testing program of the same or better than the requirements of the City of Johnson City.

SUBMIT WITH BID/PROPOSAL

DRUG-FREE WORKPLACE AFFIDAVIT

Acoustic Bat Survey Services

RFP# 6045

State of _____

County of _____

I, _____, being duly sworn, depose, and say that:

1) I am a principal officer of _____, the firm that has submitted the attached or enclosed bid or proposal, my title being _____ of the firm; and

2) I have personal knowledge of the policies of the above-named firm with respect to the maintenance of a drug-free workplace; and

3) I certify that all provisions and requirements of the Tennessee Drug-Free Workplace Program, as established by Tennessee Code Annotated §§ 50-9-113 have been met and implemented.

(Signed) _____

(Title) _____

Subscribed and sworn to before me this _____ day of _____, 2____.

Notary Public

My Commission expires: _____

COMPLETE AND SUBMIT WITH BID/PROPOSAL

APPENDIX C
PHASE 2 ACOUSTIC SURVEYS

SUMMER ACOUSTIC SURVEY SEASON: May 15 – August 15⁴²

PERSONNEL⁴³

Overall: Acoustic surveyors should have either completed one or more of the available bat acoustic courses/workshops (e.g., BCI, BCM, AnaBat) or be able to show similar on-the-job or academic experience.

Detector Deployment: Acoustic surveyors should have a working knowledge of the acoustic equipment and Indiana bat ecology. Surveyors should be able to identify appropriate detector placement sites and establish those sites in the areas that are most suitable for recording high-quality Indiana bat calls. Thus, it is highly recommended that all potential acoustic surveyors attend appropriate training and have experience in the proper placement of their field equipment.

Acoustic Analysis: Acoustic surveyors should have a working knowledge of the approved acoustic analysis programs. Thus, it is highly recommended that all potential acoustic surveyors attend appropriate training and have experience in the analysis of acoustic recordings.

Qualitative Analysis: Individuals qualified to conduct qualitative analysis of acoustic bat calls typically have experience: (1) gathering known calls. This provides a valuable resource in understanding how bat calls change and the variation present in them; (2) identifying bat calls recorded in numerous habitat types; (3) familiarity with the species likely to be encountered within the project area; and (4) individuals must have multiple years of experience and must have stayed current with qualitative ID skills. A resume (or similar documentation) must be submitted along with final acoustic survey reports for anyone making final qualitative identifications.

COORDINATION WITH USFWS FO(s)

If not already required by federal permit, we recommend that applicants submit a draft study plan for all survey phases to the USFWS FO(s) for review and approval. Study plans should include a map/aerial photo identifying the proposed project area boundaries, suitable bat habitats and acreages within the project area, the proposed number and tentative locations of acoustic monitoring sites, and the identification of the approved acoustic software program(s) (and version #) used for analysis of calls for the specific project. If a single software program is used for analysis, surveyors will not be allowed to switch programs from what was originally identified in their final study plan.

DETECTOR AND MICROPHONE REQUIRED CHARACTERISTICS

Full-spectrum and/or zero-crossing detectors are suitable for use in this survey protocol.

⁴² With prior USFWS FO approval, a survey may be completed after August 15 if it was initiated in time to be completed by August 15 and extenuating weather circumstances resulted in delaying completion. Delays as a result of not meeting the acceptable weather requirements are the ONLY valid justification for surveying after August 15.

⁴³ Coordinate with your local FO regarding any state-specific requirements.

APPENDIX C PHASE 2 ACOUSTIC SURVEYS

Directional, hemispherical, and omnidirectional microphones are acceptable for acoustic surveys. The use of external microphones on an extension cable is the preferred deployment as it further limits degradation of call quality. Recording without after-market directional horns on hemispherical and omnidirectional microphones is preferred as the addition of these systems may result in some signal degradation and directional microphones are commercially available.

Use recommended manufacturer detector settings for conducting Indiana bat P/A surveys.

ACOUSTIC SAMPLING PROTOCOL

Detector/Microphone Placement

Detector/Microphone placement is critical to the successful isolation of high-quality bat call sequences for later analysis. The following locations are likely to be suitable sites for detectors/microphones, including, but not limited to: (a) forest-canopy openings; (b) near water sources; (c) wooded fence lines that are adjacent to large openings or connect two larger blocks of suitable habitat; (d) blocks of recently logged forest where some potential roost trees remain; (e) road and/or stream corridors with open tree canopies or canopy height of more than 33 feet (10 meters); and (f) woodland edges (Britzke et al. 2010). Of equal importance to acoustic site selection is the surveyor's working knowledge of the sampling volume and area of highest sensitivity within the zone of detection around a given microphone, which helps to ensure that detector placement as well as microphone selection and orientation are best suited for a particular site. Detection distance, placement (e.g., location, orientation, height of microphone), and specific features (e.g., vegetation, water, and other obstructions) at the sample site should dictate whether a directional, hemispherical, or omnidirectional microphone is used. If detectors/microphones are placed in unsuitable locations, effective data analysis may be impossible, and the results of the sampling effort will likely be invalid.

Many features (e.g., vegetation, water, wind turbines, high-tensile power-lines, micro-wave towers) can obstruct and reflect call sequences recorded in the field and thereby reduce the surveyor's ability to record high-quality bat call sequences. The following recommendations are provided to aid surveyors in their selection of acoustic sites (also see Chenger and Tyburec 2014). If surveyors choose acoustic sites outside of these recommendations, then adequate justification for doing so should be provided with the acoustic survey report provided to the USFWS FO(s); otherwise, results from these sites will not be accepted. Surveyors should deploy microphones: (a) at least 10 feet (3 meters) in any direction from vegetation or other obstructions (Hayes 2000; Weller and Zabel 2002; Chenger and Tyburec 2014); (b) in areas without, or with minimal⁴⁴, vegetation within 33 feet (10 meters) from the microphone; (c) parallel to woodland edges; and (d) at least 49 feet (15 meters) from known or suitable roosts⁴⁵ (e.g., trees/snags, buildings, bridges, bat houses, cave or mine portal entrances).

⁴⁴ If necessary, surveyors can remove small amounts of vegetation (e.g., small limbs, saplings) from the estimated detection cone at a site, much like what is done while setting up mist-nets. Deployment of detectors/microphones in closed-canopy locations that typically are good for mist-netting are acceptable as long as the area sampled below the canopy does not restrict the ability of the equipment's detection cone to record high-quality calls (i.e., the vegetation is outside of the detection cone).

⁴⁵ If the surveyor discovers a potential roost and wishes to document bat use, please refer to Appendix E for guidance on conducting emergence surveys and contact the USFWS FO(s).

APPENDIX C PHASE 2 ACOUSTIC SURVEYS

Elevating a detector greater than 3 meters above ground level (AGL) vegetation dramatically improves recording quality. Microphones can be attached horizontally to a pole to listen out into flight space, rather than just listening up from the ground. This will serve to increase the volume of airspace sampled and avoid the distortion effect of recording near the ground.

Surveyors should distribute acoustic sites throughout the project area or adjacent habitats. In most cases, acoustic sites should be at least 656 feet (200 meters) apart. If closer spacing is determined to be necessary or beneficial (e.g., multiple suitable habitats and acoustic sites immediately adjacent to each other), sufficient justification must be provided in the acoustic survey report submitted to USFWS FO(s).

Verification of Deployment Location

It is recommended to temporarily attach GPS units to each detector (according to manufacturer's instructions) to directly record accurate location coordinates for each acoustic site that is paired with the acoustic data files. Regardless of technique used, accurate GPS coordinates must be generated and reported for each acoustic survey site.

Verification of Proper Functioning

It is highly recommended that surveyors ensure acoustic detectors are functioning properly through a periodic verification of performance to factory specifications (a service currently offered or in development by several manufacturers). It may be possible that independent service bureaus would be willing to perform this service, providing that a standard test/adjustment procedure can be developed.

It is also recommended to ensure equipment is working during set-up in the field. This can be done simply by producing ultrasound (e.g., finger rubs, calibrator, or follow the equipment manufacturer's testing recommendations) in front of the microphone at survey start and survey finish. These tests document that the equipment was working when deployed and when picked up (and by assumption throughout the entire period). Detector field settings (e.g., sensitivity, frequency, etc.) should follow the recommendations provided by the manufacturer. Surveyors should also save files produced by detectors (e.g., log files, status files, sensor files) as an excellent way to provide documentation when equipment was functioning within the survey period. Many types of detectors allow for setting timers that initiate and end recording sessions. This saves battery life as well as reducing the number of extraneous noise files recorded. However, if the units are visited when the timer is **on (i.e., unit is in standby mode)**, the surveyor cannot verify that the unit is functioning properly. This is particularly important in areas where no bat activity is recorded for the entire night or during the last portion of the night. In these cases, if the surveyor cannot demonstrate that the detector was indeed functioning properly throughout the survey period, then the site will need to be re-sampled, unless adequate justification can be provided to the USFWS FO(s).

Selection of acoustic sites is similarly important. Suitable set-up of the equipment should result in high-quality call sequences that are adequate for species identification. Nights of sampling at individual sites that produce no bat calls may need to be re-sampled unless adequate justification (e.g., areas with significant bat population declines due to WNS) can be provided to the USFWS

APPENDIX C PHASE 2 ACOUSTIC SURVEYS

FO(s). Modifications of the equipment (e.g., changing the orientation and/or microphone type) at the same location on subsequent nights may improve quantity and quality of call sequences recorded, which can be determined through daily data downloads. If modifications of the equipment do not improve call identification, then the detectors will need to be moved to a new location.

Orientation

Detectors deployed with directional microphones should be aimed to sample the majority of the identified flight path/zone. Omnidirectional microphones deployed on a pole in the center of the flight path/zone should be oriented horizontally. In some circumstances (e.g., forest openings, understory corridors, etc.), it might be desirable to aim a directional microphone vertically or at an angle between horizontal and vertical. Hemispherical microphones should be aimed vertically, creating a dome-like detection field. Hemispherical microphones are best suited for open areas where deploying at heights greater than 3 meters AGL is problematic because of the lack of structure to hide the microphone and prevent it from becoming a novel item of interest to bats. Vertical orientation, however, precludes the use of weatherproofing for protection of the microphone, since no currently-approved weatherproofing system will adequately protect the microphone of a detector aimed vertically. Once acoustic sites are identified, photographs documenting the orientation, detection cone (i.e., “what the detector is sampling”), and relative position of the microphone should be taken for later submittal to the USFWS FO(s) as part of the acoustic survey report (See Submission of Acoustic Survey Results for additional description).

Weather Conditions

If any of the following weather conditions exist at a survey site during acoustic sampling, note the time and duration of such conditions, and repeat the acoustic sampling effort for that night⁴⁶: (a) temperatures fall below 50°F (10°C) during the first 5 hours of survey period; (b) precipitation, including rain and/or fog, that exceeds 30 minutes or continues intermittently during the first 5 hours of the survey period; and (c) sustained wind speeds greater than 9 miles/hour (4 meters/second; 3 on Beaufort scale) for 30 minutes or more during the first 5 hours of the survey period. At a minimum, nightly weather conditions for survey sites should be checked using the nearest NOAA National Weather Service station and summarized in the survey reports.

Weatherproofing

Most bat detectors are not weatherproof when delivered from the factory. Recording without after-market weatherproofing is preferred as the addition of these systems may result in some signal degradation. **The decision to weatherproof detectors or not should be determined nightly based on the likelihood of precipitation in the survey area.** If necessary, detectors should be placed in after-market weatherproof containers and an external microphone, attached by an extension cable should be deployed greater than 3 meters AGL.

⁴⁶ With prior USFWS FO approval, a survey may be completed after August 15 if it was initiated in time to be completed by August 15 and extenuating weather circumstances resulted in delaying completion. Delays as a result of not meeting the acceptable weather requirements are the ONLY valid justification for surveying after August 15.

APPENDIX C PHASE 2 ACOUSTIC SURVEYS

For directional microphones, the use of a polyvinyl chloride (PVC) tube⁴⁷, generally in the form of a 45-degree elbow the same diameter as the microphone (Britzke et al. 2010) is acceptable, if the situation requires the use of after-market weatherproofing. Attach the elbow to a weatherproof box that houses the main portion of the detector. Place the microphone into the enclosed end of the elbow and aim the open end of the elbow approximately 40-degrees below the area to be monitored (Corben & Livengood 2014). Again, the preferred option for weatherproofing detectors is to detach the microphone from the detector so that the detector can be placed in a weatherproof container but the microphone (tethered by a cable) remains unobstructed.

Other after-market weatherproofing systems may become available and approved by the USFWS provided they show that call quality and the number of calls recorded are comparable to those without weatherproofing.

MINIMUM LEVEL OF EFFORT

The number of acoustic survey sites required for a project will be dependent upon the overall acreage of suitable habitat proposed to be impacted by the action. To determine the acoustic survey effort, quantify the amount of suitable summer habitat within the project area. NOTE: for projects where other impacts are likely (e.g., collision), ensure that presence/probable absence surveys are designed to cover the entire project area and NOT just the locations where tree removal is planned.

Linear projects: a minimum of 2 detector nights per km (0.6 miles) of suitable summer habitat (See Appendix F).

At least 1 detector location for at least 2 calendar nights.

Non-linear projects: a minimum of 4 detector nights per 123 acres (0.5 km²) of suitable summer habitat.

2 detector locations per 123 acre "site" shall be sampled until at least 4 detector nights has been completed over the course of at least 2 calendar nights (may be consecutive).

For example:

- 2 detectors for 2 nights each (can sample the same location or move within the site)
- 1 detector for 4 nights (must sample at least 2 locations)

⁴⁷ The PVC option has only been tested with AnaBat detectors and directional microphones. It may not perform as well with other detector microphone combinations.

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The acoustic sampling period for each site must begin at sunset⁴⁸ and ends at sunrise each night of sampling.

ANALYSIS OF RECORDED ECHOLOCATION CALLS

Step 5. Optional coarse screening - for high frequency (HF) or myotid calls (depending on available filters) or Proceed to Step 6.

- a) If no positive detection of HF calls (≥ 35 kHz) or myotid calls, no further summer surveys necessary.

- b) If positive detection of HF or myotid calls, then
 - i) proceed to Step 6 for further acoustic analysis; **OR**
 - ii) assume presence of Indiana bats and coordinate with the USFWS FO(s);
OR
 - iii) assume presence and proceed to **Phase 3**.

Step 6. Conduct Automated Acoustic Analyses for each site that had HF or Myotid calls from Step 5 or ALL sites if Step 5 was not conducted.

Use **one or more** of the currently available ‘approved’ acoustic bat ID programs⁴⁹ (use most current **approved** software versions available and manufacturer’s recommended settings for Indiana bat P/A surveys). ‘Candidate’ programs are not yet approved by USFWS for stand-alone use for Indiana bat P/A surveys, but may be used in conjunction with one or more of the approved programs. Include your plans for which specific software program(s) you will use in your survey work plan and submit for USFWS FO(s) review prior to conducting surveys. Beginning with acoustic data from night one at each acoustic site, run each night’s data for each site through your chosen ID program(s). Review results by site by night from each acoustic ID program used⁵⁰.

- a) If Indiana bat presence is considered unlikely by the approved **and candidate** program(s) used in analysis, then no further summer surveys necessary.

- b) If Indiana bat presence is considered likely at one or more sites on one or more nights by any approved **or candidate** program(s) used in analysis, then
 - i) proceed to **Step 7** for qualitative ID; **OR**

⁴⁸ Surveys may need to start a little earlier or later than official sunset times (i.e., at “dusk”) in some settings such as a deep/dark forested valleys or ridge tops to avoid missing early-flying bats or capturing late-flying birds, respectively. Sunset tables for the location of survey can be found at:

http://aa.usno.navy.mil/data/docs/RS_OneYear.php

⁴⁹ Approved and candidate programs are listed at

<http://www.fws.gov/midwest/Endangered/mammals/inba/surveys/inbaAcousticSoftware.html>

⁵⁰ The approved acoustic identification programs all have implemented a maximum likelihood estimator (MLE) at this time. If the analysis of collected calls at a given site on a given night results in the probable presence of Indiana bats with high levels of certainty ($P < 0.05$), then select one of the options available in Step 6b.

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PHASE 2 ACOUSTIC SURVEYS

- ii) assume presence of Indiana bats and coordinate with the USFWS FO(s);
OR
- iii) assume presence and proceed to **Phase 3**.

Step 7. Conduct Qualitative Analysis of probable Indiana bat calls from Step 6.

At a minimum, for each site/night a program considered Indiana presence likely, review all files from that site/night. Qualitative analysis⁵¹ must also include and present within a written report a comparison of the results of each acoustic ID program by site and night (including: number of call files flagged as probable Indiana bats by each tool used; an evaluation of other species identified by the acoustic ID program; individual file level agreements and disagreements on Indiana bats between programs; and a qualitative analysis of ALL probable Indiana bat call sequences to further evaluate whether the correct ID has been made by the program(s) used).

- a) If no visual confirmation of probable Indiana bats, then no further summer surveys necessary.
- b) If visual confirmation of probable Indiana bats, then
 - i) assume presence of Indiana bats and coordinate with the USFWS FO(s); **OR**
 - ii) assume presence and proceed to **Phase 3**.

SUBMISSION OF ACOUSTIC SURVEY RESULTS

NOTE: All raw data, including log files, MUST be maintained for a period of 7 years and be made available to the USFWS FO(s), if requested. Failure to do so may result in invalidation of survey results.

Provide results of acoustic surveys to the appropriate USFWS FO(s) within 10 days of completing the survey unless otherwise agreed upon with the local USFWS FO(s)⁵². Each acoustic survey report should include the following⁵³ (also, see checklist at end of this appendix):

1. Copy of habitat assessment (if not previously provided)

⁵¹ Qualitative analysis of each acoustic site and night with probable detections of Indiana bats during Step 6 should include the entire night's high frequency call data and not just those files making it through the acoustic analysis tools as probable Indiana bats in Step 6.

⁵² As discussed in the Introduction, we encourage coordination with USFWS FO(s) prior to implementation of any surveys to ensure that all parties agree upon the need for surveys, the methods proposed, and the decisions from various survey results.

⁵³ In 2016, Region 3 (R3) of the USFWS is conducting a pilot study to help standardize reporting of bat survey data. In addition to a traditional written report, R3 federal permit holders (and other regions/FOs as requested) will be required to submit their survey data using standardized permit reporting spreadsheets available on the R3 Indiana Bat Summer Survey Guidance webpage (<http://www.fws.gov/midwest/Endangered/mammals/inba/inbasummersurveyguidance.html>).

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2. Explanation of any modifications from original survey plan (e.g., altered site locations)⁵⁴
3. Full names of all personnel conducting acoustic surveys, including those that selected acoustic sites and deployed detectors
4. Full name and resume of individual(s) conducting qualitative acoustic analyses (if applicable)
5. Description of acoustic monitoring sites, survey dates, duration of survey, weather conditions, and a summary of findings
6. Table with information on acoustic monitoring and resulting data, including but not limited to: detector GPS coordinates, survey dates, survey hours
7. Map identifying acoustic monitoring locations and a corresponding table including the GPS coordinates. **Include arrow(s) showing direction(s) of microphone(s).**
8. Photographs of each acoustic site documenting the location of the detector, the orientation of the detector, and the detection cone (i.e., what the detector sampled). Please include detector **and something for scale (e.g., vehicle, person)** in photographs of acoustic sites.
9. Description of acoustic detector brand(s) and model(s) used, microphone type, use of weatherproofing, acoustic monitoring equipment settings (e.g., sensitivity, audio and data division ratios), deployment data (i.e., deployment site, habitat, date, time started, time stopped, orientation), and call analysis methods used
10. A description of how proper functioning of bat detectors was verified
11. **Discussion of what software program(s) was/were used (including settings).**
12. Acoustic analysis software program output/summary results by site by night (i.e., number of calls detected, species composition, MLE results)
13. **Discussion for any site/nights with zero bat calls (were additional nights added?, was detector functioning?, was placement appropriate?).**
14. **If manual vetting was used, discussion of how this was done (e.g., what keys were used?).** Detailed analysis and results of any qualitative acoustic analysis conducted on those projects where a program(s) considered Indiana bat presence likely, including justification for rejecting any program MLE results (if applicable).
15. Any other information requested by the local USFWS FO(s) related to the project

REFERENCES

⁵⁴ If the USFWS previously agreed upon the study plan we need to understand whether the revised work still accomplished the agreed upon methods.

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PHASE 2 ACOUSTIC SURVEYS

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APPENDIX C
PHASE 2 ACOUSTIC SURVEYS

General Checklist for Acoustic Surveys of Indiana Bats

The following items should be documented and clearly presented
within acoustic bat survey reports submitted to the Service

ACOUSTIC SURVEY INFO

- Project Name
- Site ID No./Name
- State and County
- Site Lat./Long. Coordinates
(e.g., decimal degrees, NAD83)
- Approx. accuracy of Lat./Long. Coordinates
- Survey Date(s)
- Person who Selected Acoustic Site(s)
- Person who Deployed Detector(s)
- Detector Brand & Model
- Microphone Brand & Model
- Microphone Type:
Directional/Hemispherical/Omnidirectional
- Type of Weatherproofing (if any)
- Microphone Height above Ground-level
Vegetation(m)
- Distance from Nearest Vegetation or other
Obstruction (m)(apart from veg. on ground)
- Horizontal Orientation of Microphone
(1-360°)
- Vertical Orientation of Microphone
(assuming 0° is parallel with horizon)
- Photographs of Detector Set-up at each Site
- Detector Settings (all settings used for each
brand/model of detector. For example,
sensitivity, gain, data division, 16k high
filter, sample rate, min./max. duration, min.
trigger freq., trigger level, etc.)
- Survey Start Time (military)
- Survey End Time (military)
- Methods used to Field-test proper
Functioning of Detector
- Were calls collected in Full Spectrum or
Zero Crossing?
- Habitat Type and/or Feature Surveyed
- Weather Conditions during Survey Period

ACOUSTIC ANALYSIS INFO

- Program used to convert Full Spectrum to
Zero Cross (if applicable)?
- Filter(s) used (if any) and parameters used
(e.g., CFRead, noise, bug, etc.)
- Name of Service-approved Bat ID Software
Program(s) and Version(s) used and
Candidate program(s)(if used)
- Program Settings (if applicable):
 - Min. # of pulses for species ID
 - Min. # of pulses per group ID
 - Min. discrim. prob. for species ID
 - Other relevant settings affecting ID
 - Suite of species/groups included in
program analysis
- Table summarizing Number of Calls ID'd
for each Species/Site/Night/Program
(including MLE p-values)
- If Qualitative Analysis was conducted,
include Number of Calls Confirmed through
Qualitative ID for each Species/Site/Night
- Full Name of Person(s) who conducted
Qualitative Analysis
- Additional Survey Reporting Requirements
- Acoustic Report Appendices:
 - data sheets and maps,
 - photographs of detector set-ups,
 - computer screen captures of
representative bat species identified
during acoustic analyses, and
 - resume(s) highlighting relevant
qualifications of person(s) who
conducted qualitative analysis
(e.g., experience visually identifying
Myotis, certificates of training,
publications etc.)

APPENDIX F LINEAR PROJECT GUIDANCE

For linear projects (e.g., pipelines and roadways), surveyors have the option to use either mist nets or acoustic detectors in any given 1-km segment of suitable habitat. A survey site may also cover other associated linear project facilities (e.g., access roads) that are located within a pre-determined distance of each segment. When possible, surveyors should seek out the best available survey sites located within the footprint of the project alignment, and directly adjacent to, or near, the alignment if no suitable sites are available within the footprint. Because the best survey sites for capturing/detecting bats may fall outside of a project footprint, the surveyor and project proponent should coordinate with the appropriate USFWS FO to establish a project-specific maximum distance from the centerline or project boundary prior to initiating surveys.

Tentative survey site locations along linear projects should be included in a proposed study plan to be reviewed and approved by the USFWS FO. One site should be surveyed within each approximate 1-km segment that contains suitable forested habitat along the proposed workspace. It is not appropriate to cumulatively add up each habitat block crossed until 1km of habitat has been traversed. Segments along a linear project that do not contain suitable habitat should be skipped until the next patch of suitable habitat is encountered (Figure 1). Establishing exactly how many survey sites are needed for presence/absence surveys along a linear project often involves some give and take particularly in fragmented habitat areas (Figure 1, rows B and C). The final number of survey sites could be greater than the minimum number of sites prescribed in the protocol in order to adequately cover the areas of suitable habitat to be impacted. When available, habitat quality and quantity (e.g., size and location of suitable maternity roost trees) from on-the-ground habitat assessments can be used to fine tune and guide the placement of survey sites. In some marginal habitat areas, the quality and quantity of the existing habitat may be low enough to justify skipping some survey segments (e.g., Figure 1, Site 11). Likewise, some isolated woodlots, fencelines or individual trees may be considered too isolated and/or small to independently support bats and may be skipped if the USFWS FO concurs. Habitat suitability in fragmented areas should be assessed on a site-specific basis and consider habitat configuration and connectivity to other suitable habitat patches. In general, we recommend surveying a few more sites for a project than the absolute minimum required.

In instances where a mist netting survey has been proposed, but no suitable mist net sites can be found or accessed within a particular segment, biologists should contact the USFWS FO for further guidance or ideally agree in advance as to how such situations will be handled when encountered in the field (e.g., an acoustic survey may be substituted). Similarly, if an area of forest habitat that seemed suitable from aerial photography appears to be unsuitable or of particularly low quality upon field inspection, then you should coordinate with the USFWS FO to determine if an area may be exempted from surveys. To avoid problems, any significant departures from previously agreed to survey plans should be justified and coordinated with the USFWS FO prior to leaving the field.

APPENDIX F
LINEAR PROJECT GUIDANCE

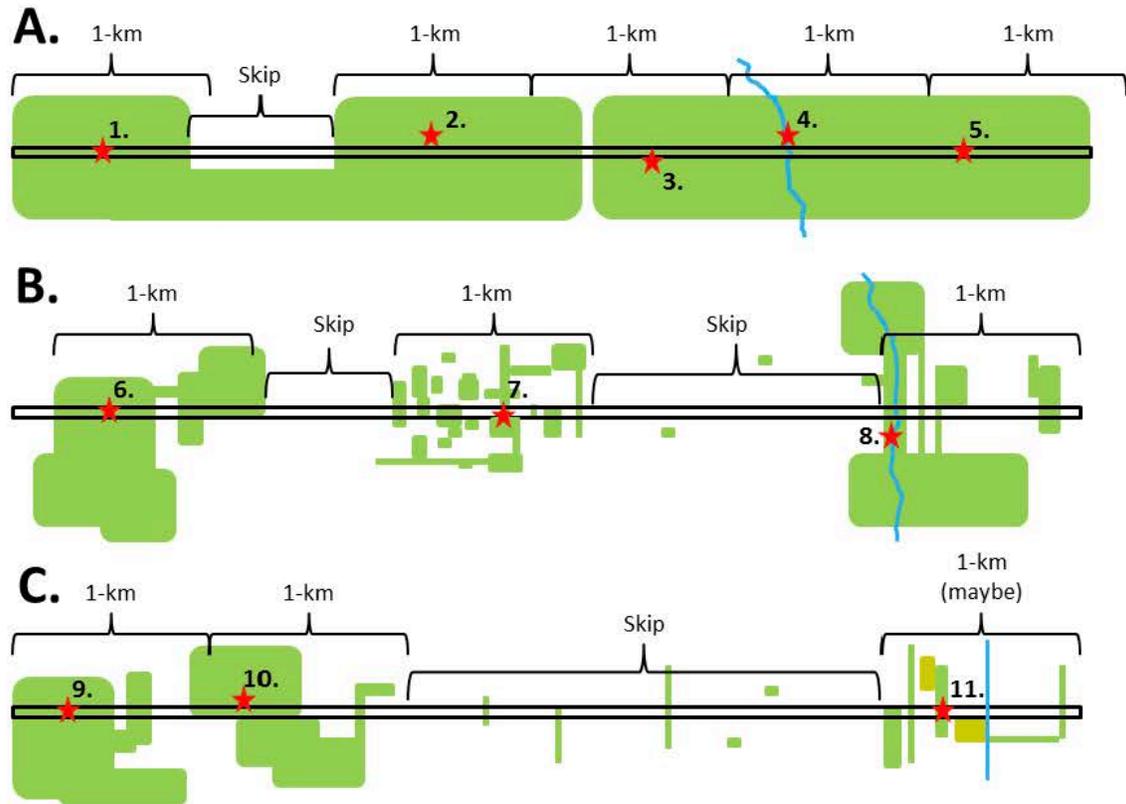


FIGURE 1. Conceptual linear project (black double lines) through relatively contiguous (A.) and fragmented (B. and C.) forested habitats (green patches) delineated into approximate 1-km survey sections. Numbered red stars represent suitable survey sites (1-11) on or near the project boundaries. Blue lines represent natural streams (A. and B.) and a ditch (C.). Yellow-green patches near Site 11 represent low-quality habitat.