

# KNOXVILLE REGIONAL PAVEMENT MANAGEMENT SYSTEM

## REQUEST FOR PROPOSALS

### NOTICE

Knoxville-Knox County Planning is soliciting proposals to conduct a regional study of pavement conditions and development of a formal Pavement Management System for multiple jurisdictions within the Metropolitan Planning Area (MPA) of the Knoxville Regional Transportation Planning Organization (TPO). Note, the TPO is an independent agency engaged in the performance of meeting the required federal transportation planning regulations for urbanized areas greater than 50,000 population however it is housed within the agency known as Knoxville-Knox County Planning, which provides the professional transportation planning staff for the TPO and acts as the contracting agency for grant-funded projects such as this study.

All proposals are due on November 6, 2020 by 4:00 p.m. EST and submitted electronically at: <https://knoxplanning.org/news/2020/1023/415/regional-pavement-management-system>

**See subsequent section of this RFP for full electronic submittal instructions**

Knoxville-Knox County Planning retains the right to reject any and all proposals and may re-advertise, waive formalities in the request for proposals, or abandon the project.

This study is contingent upon the authorization of federal funding.

### CONTACT INFORMATION

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## I. PROJECT BACKGROUND AND DESCRIPTION

Knoxville-Knox County Planning, in partnership with multiple jurisdictions within the MPA of the Knoxville Regional TPO, is seeking a professional firm, consultant, or team to develop a Regional Pavement Management System.

### PROJECT AREA

The Knoxville Regional TPO serves as the federally designated Metropolitan Planning Organization for the Knoxville Urbanized Area. The TPO's Metropolitan Planning Area (MPA) was established to include at minimum the 2010 Census-designated Knoxville urbanized area and expanded to include full municipalities and other area that was deemed likely to become urbanized within a 20-year forecast period. Voting membership on the TPO Executive Board is comprised of the county mayors for: Anderson, Blount, Knox, Loudon and Sevier counties and the mayors of municipal areas within those counties with population of 5,000 or greater including: Clinton, Oak Ridge, Alcoa, Maryville, Farragut, Knoxville, City of Loudon and Lenoir City.

A map of this area is provided as Attachment A.

According to roadway inventory information available through the Tennessee Department of Transportation (TDOT) E-TRIMS system there are approximately 4,930 centerline miles of non-state maintained public roadways within the TPO MPA. Participation in this study will be optional and it is unknown at this point in time which jurisdictions will ultimately take part. Some jurisdictions may not be interested for various reasons such as cost or because they already have a pavement management system in place.

### PROJECT OBJECTIVE

The selected entity will be expected to collect all of the necessary data for the inventory and conditions of roadways in the established study area and develop a systematic process prioritizing pavement preservation and rehabilitation treatments based on a sound economic analysis of alternatives. The final products will include jurisdiction-specific sets of documentation on short and long-term pavement maintenance and rehabilitation treatment needs and pavement condition/inventory information that is in a GIS-format compatible with agency GIS systems.

## II. SCOPE OF WORK

Following the consultant selection process, a scoping meeting will be held to determine and negotiate the final scope of work and a contract for services. Therefore, the following list represents the major tasks and associated activities that are envisioned, but it is preliminary and as such Knoxville-Knox County Planning reserves the right to make revisions as deemed necessary.

The project is envisioned to include three phases and an overall project coordination process which are outlined and generally described below. Once a consultant has been selected further refinement of the project scope will occur.

### **Phase I: Determination of Scope and Agency Participation**

The first stage of the study will be to convene a regional workshop with Knoxville TPO member jurisdictions to review the benefits and costs of conducting a formal Pavement Management System in order to determine the specific level of participation and ultimate scope of the study. Other parameters of the overall program will be established during this phase such as defining the pavement condition rating system(s) such as PCI, IRI, etc. and whether all travel lanes are to be inventoried or just one direction of travel. Initial information about system software options will be provided by the consultant at this stage for discussion purposes.

### **Phase II: Pavement Inventory and Data Collection**

The second phase of the study consists of the tasks related to data collection and coordination with participating agencies to obtain necessary roadway inventory information.

- Inventory of Existing Road System – the consultant will prepare an inventory of all information necessary to develop the Pavement Management System for all participating jurisdictions such as: street name, section length/width, details on last resurfacing and so on within a GIS database environment. A determination of specific analysis segmentation will also likely be made at this time in order to provide for coherent and homogeneous sections for the subsequent analyses. The Knoxville TPO and local jurisdictions will provide current information to the consultant as available to support this task.
- Pavement Data Collection, Assessment and Verification – the consultant will perform a pavement condition collection and measurement survey of the study area public roadways as determined in the prior steps. The proposer should include suggested specific data collection items based on their previous experience with successful regional and multi-jurisdictional projects if any. There may be different needs and desires in various jurisdictions including items such as: surface type, surface condition, surface distress, ride quality, traffic counts, skid resistance, drainage properties and utility cuts. The work shall also include a current digital image of inventoried streets in a format compatible with ESRI ArcGIS that includes information on specific distress types and other data. The data

collection plan shall also include a formal quality assurance plan to address quality control for data collection and acceptance by Knoxville TPO and local jurisdiction staff.

- **Optional Data Items** – the proposer can choose to provide details in the proposal regarding other roadway and infrastructure condition items not directly related to pavement condition that could be collected simultaneously with pavement data and processed at an incremental additional cost. Examples include traffic sign and pavement marking condition and other such items. These items would be included under a separate contract and paid for by the individual interested jurisdictions, but would only be pursued if deemed to not hinder or delay the main purpose of completing the pavement management products of this study.

### **Phase III: Analysis and Modeling**

The third phase entails analyzing the pavement condition data and performing the various modeling exercises needed to identify projected future conditions as well as analyzing multiple funding and treatment scenarios.

- **Data Analysis and Priority Setting** – the consultant will develop a computer database system that provides for the ability to perform analyses on the pavement condition data to determine various cost assessments of multiple pavement treatment/repair strategies within different funding scenarios in a decision-tree format. The repair strategies listed should be of a feasible type based on the particular local availability of types of pavement materials. This stage will also be used to finalize selection of the software platform/solution based on meeting all specified requirements of the project and factors such as license fees. Note, given the variation of individual jurisdiction's staffing levels in the TPO, the proposal should list options that can accommodate multiple approaches to development and ongoing maintenance of a formal software platform since there may not be capacity for such at every participating jurisdiction.
- **Develop Recommended Implementation Plan** – the consultant will produce recommended short-term (1-5 year) and long-term (5-10 year) pavement maintenance/resurfacing plans for each participating jurisdiction. The plan will provide project priorities, funding needs and recommendations for improved pavement maintenance strategies that would be necessary to achieve a desired overall network-level pavement condition level. There should also be documentation provided for impacts to network pavement conditions from a do-nothing or business as usual, i.e. under-funded scenario.

### **General Project Coordination and Meetings**

- **Project Management and Coordination** – develop project schedule and associated project management tasks such as invoicing and status reporting.

- Stakeholder outreach and project coordination – the consultant will develop a schedule for periodic meetings with project participants or an established project steering committee depending on the final selected approach. The meetings can likely be held in a virtual format and will be used at key decision points in the study development process.
- Ongoing Support and Training – the consultant will convene a workshop with participating jurisdictions and TPO staff to provide training on the use of the resulting software and overall pavement management system process. In addition, technical support shall be provided for up to one year beyond final deliverables being produced. Presentations of the final project shall be provided to the TPO Technical Committee and/or TPO Executive Board as requested.

#### WRITTEN AND ELECTRONIC DOCUMENTATION

The consultant will develop and produce any necessary documentation and user manuals to ensure usefulness of the outputs from this study. A brief graphic report or similar document shall summarize the process, major findings and recommendations for use on a jurisdiction-specific basis and incorporated into visual presentation means such as PowerPoint. Other project deliverables involved with specific software programs and GIS files will be determined in the final scope.

#### STUDY TIMEFRAME

It is desired to kick-off the project in early 2021 with an anticipated completion date by December 2021.

### III. PROPOSAL SUBMISSION REQUIREMENTS

To be eligible for consideration, an electronic (pdf) version of the overall proposal shall be received by Knoxville-Knox County Planning no later than **by 4:00 p.m. EST on November 6, 2020**. Late submittals will not be considered.

Electronic Submission Procedures :

Each Proposal must be submitted electronically as a PDF document as follows:

1. Go to the direct internet link of: <https://knoxplanning.org/news/2020/1023/415/regional-pavement-management-system>
2. Click “RFP – Regional Pavement Management System”
3. Click “Submit Proposal”
4. Follow the prompts to upload and submit the full PDF version of your Proposal to the Dropbox account provided.
5. Files MUST use the following naming convention of first including the firm’s name followed by the title of the project, followed by the word “Proposal”.
  - a. Example: ABC Company-Regional Pavement Management System-Proposal.pdf.

Proposals should be fully self-contained and display clearly and accurately the capabilities, knowledge, experience, and capacity of the Respondent to meet the requirements of the project and the RFP. Respondents are encouraged to utilize methods they consider appropriate in communicating the required information. The Proposal shall be organized in the following format and shall include the information in the below outline:

**A. Cover Letter**

The cover letter must be signed by an officer of the firm authorized to execute a contract with Knoxville-Knox County Planning. The primary contact should be identified with name, telephone number, email and mailing address.

**B. General Qualifications**

Provide a summary of the Consultant’s/Team’s qualifications, general information about the firm(s), location of office(s), years in business and areas of expertise.

**C. Key Staff & Sub-consultants**

Identify key staff and include a description of their abilities, qualifications and experience. Attach resumes of key staff that will be assigned to this project. Include a proposed project management structure, organizational chart and availability to work on this project.

Identify any portion of the scope of work that would be subcontracted. Include firm qualifications (brief) and key personnel and contact information for all subcontractors. It shall be the responsibility of the prime consultant to include a signed statement from each sub-consultant on their own letterhead confirming that they have the staff available and agree to provide the necessary services for the specific item/project listed in the proposal. Failure to meet these requirements will void the submittal. Knoxville-Knox County Planning reserves the right to approve or reject all consultants, internal staff performing consulting services, or subconsultants proposed by the Consultant.

**D. Previous Experience**

Provide documentation of relevant experience with up to four (4) examples of similar projects identifying which team members worked on the project and their roles. An emphasis and priority in evaluation will be placed on firms with qualifications and experience that have resulted in successful implementation of comparable projects.

Provide the names, addresses, email addresses and telephone numbers of the clients for the projects included in this section. Projects and references for both the prime consultant as well as any proposed sub-consultants should be provided. Each project example shall include information on the dates that work was performed and the contract amount.

**E. Proposed Project Approach and Workplan**

Provide documentation of the proposed approach to the project that includes the proposer's understanding of the project's objectives and local context, tentative schedule for project completion by phase/task, a description of your approach/methodology to each of the tasks listed in Section II, description of all project deliverables and tentative stakeholder engagement process. Consultant/Team shall expand on the scope of work if appropriate to accomplish the overall objectives of the project and provide suggestions which might enhance the results or usefulness of the study.

It is understood that there are multiple approaches, methods and software platforms available to complete the proposed tasks. The proposer should clearly indicate these types of decision points for specific approaches and list pros and cons of various options along with their recommendation based on past experience on successful pavement management system projects.

**F. Time Schedule**

Provide a time schedule corresponding to the required tasks and identified workplan and confirm the Consultant/Team ability to meet the proposed schedule. Include assumptions about the number of meetings needed with Knoxville-Knox County staff and other project stakeholders to complete the Scope of Work.

#### IV. CONSULTANT SELECTION PROCESS

Knoxville-Knox County Planning shall designate a Consultant Evaluation Committee (CEC) comprised of certain staff members and other key project stakeholders. The basic elements of the selection process are as follows:

##### EVALUATION OF SUBMITTALS

The proposals submitted by each Consultant/Team will be evaluated by the CEC and scored according to the following criteria (relative weight):

- a. **Qualifications (30 points)** Staff qualifications, credentials, overall firm experience and time availability of the staff assigned to manage and conduct the study.
- b. **Experience (25 points)** Past experience in the required disciplines with TDOT and/or other clients by descriptions and evaluations of similar prior corridor study projects.
- c. **Approach (25 points)** Demonstrated understanding of the project scope and the proposal's overall completeness, organization, innovation and strength of the technical approach to the study tasks.
- d. **Project Management (15 points)** Documentation of study schedule, major milestones and approach to management of the project along with a demonstrated ability to meet schedules and budgets without compromising final products of the project.
- e. **Local Knowledge (5 points)** Demonstrated understanding of the area and awareness of opportunities and constraints of the project. Evaluations on prior projects with Knoxville-Knox County Planning, TDOT or TPO jurisdictions if applicable.

Following the evaluation process, the CEC will make a final ranking of the Consultant(s)/Team(s) in order of preference. Based on the outcome of the initial proposal evaluation, the CEC reserves the right to request interviews from shortlisted firms. Knoxville-Knox County Planning will negotiate with the most highly qualified firms in rank order until successful execution of a contract for the project is completed.

##### SELECTION SCHEDULE

The process for selecting a consultant team, including the commencement of contract and notice to proceed, are tentatively scheduled as follows:

<b>Proposal Submittal Deadline</b>	<b>November 6, 2020</b>
<b>Consultant Selected</b>	<b>November 20, 2020</b>
<b>Contract Commencement</b>	<b>January 1, 2021</b>
<b>Kickoff Meeting</b>	<b>February 1, 2021</b>

## REJECTION RIGHTS AND COST OF PROPOSAL PREPARATION

A selected consulting firm shall provide professional services in full accordance with federal, state and local regulations, policies and/or standards specific to the project's funding source, where applicable. Knoxville-Knox County Planning reserves the right to reject any or all proposals submitted, to advertise for new proposals, or to accept any submitted proposal deemed to be in the best interest of Knoxville-Knox County Planning. Further, all costs incurred by consulting teams in the preparation and submittal of proposals, including interview travel if held, are not reimbursable by Knoxville-Knox County Planning. Additionally, any costs incurred by a selected consultant prior to a notice to proceed are not reimbursable by Knoxville-Knox County Planning.

## COMPLIANCE WITH LAWS

The consulting firm(s) shall conduct all operations under this contract in compliance with all applicable laws. The consulting firm(s) shall comply with all state and federal regulations pertaining to minimum wage and fair labor standards. The consulting firm(s) shall not discriminate in hiring or any other practice with respect to gender, race, age, creed, religion, or nationality. Knoxville-Knox County Planning and its officers, officials, agents, and employees shall be indemnified and held harmless for any failure by the consulting firm(s) to comply with any applicable laws, rules and/or regulations.

## ADDENDA AND SUPPLEMENTS TO RFP

In the event that it becomes necessary to revise any part of this RFP or if additional information is necessary to enable the proposer to make adequate interpretation of the provisions of this Request for Proposal, a supplement to the RFP will be posted on the Knoxville-Knox County Planning website.

## PROPOSALS TO BE IN EFFECT

Each proposal shall state it is valid for a period of not less than ninety (90) days from the date of receipt. All proposals shall become the property of Knoxville-Knox County Planning and will not be returned.

## INQUIRIES

Questions or inquiries about the proposal are to be made in writing (email) prior to November 1, 2020 and answers will be posted to the website. Origin of the questions will not be identified.

Please direct questions via email to: Mike Conger, P.E., Senior Transportation Engineer,  
mike.conger@knoxplanning.org

ATTACHMENT A: STUDY AREA MAP

