

# **REQUEST FOR PROPOSAL(S)**

**February 1, 2012**

## **CONTRACT FOR** *PROFESSIONAL SERVICES*

**Intelligent Transportation Systems-Mississippi 511**

**Issuing Office**

**Mississippi Department of Transportation  
P. O. Box 1850  
Jackson, Mississippi 39215-1850**

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# PART 1 GENERAL INFORMATION FOR CONSULTANTS

## I. Purpose

This *Request for Proposal* (RFP) is intended to provide interested CONSULTANT(s) with sufficient information for the preparation and submission of a PROPOSAL for consideration by the Mississippi Transportation Commission (hereinafter referred to as the COMMISSION) to:

Provide the professional services and qualified personnel to design, build, implement, operate, and maintain a Statewide “511 Traveler Information System” Project No. ITS-0000-00(511) / 105762, Statewide (hereby referred to as the PROJECT).

**NOTE: This document does not and is not intended to include or address every item that will be included or addressed in the contract for professional services.**

## II. Issuing Office

This RFP is issued by the Mississippi Department of Transportation (MDOT) on behalf of the Mississippi Transportation Commission. CONSULTANT(s) submitting PROPOSALS must comply with the instructions in this RFP and Legal Ad. The issuing office is identified below:

Scot Ehrgott, P.E., MDOT Director of Consultant Services  
Mississippi Department of Transportation  
P.O. Box 1850  
Jackson, Mississippi 39215-1850  
[sehrgott@mdot.state.ms.us](mailto:sehrgott@mdot.state.ms.us)

## III. Intention of the COMMISSION

The intent of the COMMISSION is to execute a Contract for Professional Services with CONSULTANT(s) to provide the services specified herein. This document does not and is not intended to include or address every item that will be included or addressed in the contract for professional services.

## IV. The Selection Process

Selection of CONSULTANT(s) will be based on the criteria established in the RFP and/or any addenda. CONSULTANT(s) for this PROJECT should submit complete PROPOSALS sufficient for final selection of the most qualified firm. The MDOT will then select the most qualified firm based on the criteria. The MDOT will draft a Contract for the selected Consultant to execute based on the scope of work established in this RFP and/or any addenda. If the most qualified consultant does not execute the Contract or is unable to meet

any contractual requirements, then MDOT may reject the most qualified firm for the duration of this process and select the next most qualified firm on the list until a contract has been executed.

The MDOT reserves the right to reject any and all PROPOSALS and/or to discontinue contract execution with any party at any time prior to final contract execution.

## V. Type of Contract

The Contract shall be based on those unit costs submitted with the COST-PROPOSAL for this RFP (see Part 2, Requirements of the PROPOSAL) **which will result in the maximum “not to exceed” amount.** The contract will include all appropriate Federal contract provisions in accordance with 49 CFR, Part 18, as revised and any other requirements MDOT may deem necessary. The Contract will provide general terms and conditions for performance of services, as well as specific instructions for fees, billing, payment, etc. An example of a typical MDOT Contract professional service boilerplate may be found on the website at the following location:

[http://www.gomdot.com/Divisions/AdministrativeServices/Resources.aspx?Div=Consulting Services](http://www.gomdot.com/Divisions/AdministrativeServices/Resources.aspx?Div=ConsultingServices)

All written questions regarding this Contract shall be e-mailed to the below addressee no later than **February 15, 2012, 5:00pm Central Time.**

Scot Ehrgott, P.E.  
MDOT Director of Consultant Services  
e-mailed to [sehrgott@mdot.state.ms.us](mailto:sehrgott@mdot.state.ms.us)  
and copy [srone@mdot.state.ms.us](mailto:srone@mdot.state.ms.us)

MDOT may update this template throughout the procurement process for this project. MDOT intends to post the Final Contract boilerplate for this PROJECT to the website indicated above no later than **February 24, 2012.** Contract terms after this date are non-negotiable. However, MDOT reserves the right to modify the contract terms at its discretion.

**NOTE: This RFP document does not and is not intended to include or address every item that will be included or addressed in the contract for professional services. The Contract template should be reviewed by the interested firm for these purposes.**

## VI. Costs Incurred by CONSULTANT Prior to Execution of a Contract

The **COMMISSION** shall not be liable for any costs incurred by any CONSULTANT prior to the execution of a contract by all parties. Further, the **COMMISSION** shall not be liable for any costs incurred by the CONSULTANT under the Contract prior to the effective date of the MDOT Project Director’s Notice to Proceed.

## VII. Addenda and/or questions to this RFP

Only written requests e-mailed to the below addressee will be considered. No requests for additional information or clarification to any other MDOT office, CONSULTANT, or employee will be considered. All responses to written questions and addenda will be in writing and will be posted to the MDOT website indicated below:

<http://www.gomdot.com/Divisions/AdministrativeServices/Resources/LegalAds/Home.aspx>

CONSULTANTS shall be solely responsible for checking the website for updates. The MDOT will not be responsible for any oral exchange or any exchange of information that occurs outside the official process specified herein.

Scot Ehrgott, P.E.,  
MDOT Director of Consultant Services  
e-mailed to [sehrgott@mdot.state.ms.us](mailto:sehrgott@mdot.state.ms.us)  
and copy [srone@mdot.state.ms.us](mailto:srone@mdot.state.ms.us)

All written questions shall be e-mailed to this addressee no later than **February 15, 2012, 5:00pm Central Time**.

MDOT intends to post written answers for this PROJECT to the website indicated above no later than **February 24, 2012**.

## VIII. Pre-proposal Meeting

A pre-proposal meeting will not be held for this RFP.

## IX CONSULTANT Submission

To be considered, **six (6) copies and one CD (pdf format)** of the CONSULTANT's PROPOSAL and **one copy of the COST-PROPOSAL** must be received by **5:00 p.m., Central Time, March 8<sup>th</sup>, 2012** in the Office of the Director of Consultant Services, Scot Ehrgott, Mississippi Department of Transportation Building, 401 North West Street, Jackson, Mississippi, 39201.

PROPOSALS received after **5:00 p.m., Central Time, March 8<sup>th</sup>, 2012**, may be deemed non-responsive by the **COMMISSION**.

## X. PROPOSALS

To be considered, CONSULTANT(s) must submit a complete response to this *RFP and any addenda*, addressing those requirements (and using the appropriate format) provided in Part 2 of this RFP. No other distribution of PROPOSALS and COST-PROPOSAL shall be made by the CONSULTANT. **The original and all required copies of the PROPOSAL and COST-PROPOSAL must be signed by an official authorized to bind the CONSULTANT to its provisions.**

With the exception of the requirements related to the number of copies to be submitted and formatting (see Part 2, section I), the COST-PROPOSAL shall be considered as part of the PROPOSAL for purposes of meeting all other requirements of this RFP.

#### **XI. Economy of Preparation**

PROPOSALS should be prepared simply and economically, providing a straightforward, concise description of the CONSULTANT'S ability to meet the requirements of the *RFP and any addenda*.

#### **XII. Prime Consultant Responsibilities**

The selected CONSULTANT (prime CONSULTANT) will be required to assume responsibility for all services offered in the PROPOSAL whether or not they are produced directly by the prime CONSULTANT or through subconsultant(s). Furthermore, the **COMMISSION** will consider the prime CONSULTANT to be the sole point of contact with regard to contractual matters, and the MDOT retains the right to approve or disapprove all proposed subconsultant(s). CONSULTANT(s) responding to this *RFP* must identify all proposed partners and subconsultant(s).

The CONSULTANT'S firm must be registered with the Mississippi Secretary of State's office to do business in the State of Mississippi prior to Contract execution. Failure to comply with this requirement within 30 days of selection notification may result in failure to execute a Contract with the Consultant. MDOT may then reject the selected firm for the duration of this process and select the next most qualified firm on the list until a contract has been executed.

#### **XIII. Disclosure of PROPOSAL Contents**

All materials submitted in response to this *RFP* shall become the property of the **COMMISSION** and may be returned only at the **COMMISSION's** option. All information submitted in response to this *RFP* shall be subject to disclosure under the Mississippi Public Records Act and any other applicable law.

#### **XIV. Nondiscrimination Requirement**

By submitting a response to this *RFP*, the CONSULTANT agrees that they understand that the **COMMISSION** is an equal opportunity employer. It is the policy of the **COMMISSION** to comply with all applicable portions of Title VI of the Civil Rights Act of 1964 which prohibits unlawful discrimination based on race, color, creed, sex, age, national origin, physical handicap, or disability. The proposed contract will require that the CONSULTANT and all subconsultant(s) agree to strictly adhere to this policy in all employment practices and provision of services.

In the event the CONSULTANT performs work for the **COMMISSION** that involves the selection of a site or location of a facility, the CONSULTANT shall utilize criteria or

methods of selection which consider the impacts and benefits of the facility on persons without discrimination because of their race, color, religion, sex or national origin. The criteria and methods shall be designed to include proactive measures for obtaining citizen participation from persons of all applicable races, colors, religions, sexes and national origins.

#### **XV. Disadvantaged Business Enterprise (DBE Goal)**

The DBE goal for this PROJECT is **3%**. The CONSULTANT shall exercise all necessary and reasonable steps to ensure that participation is equal to or exceeds the contract goal. CONSULTANTS may visit MDOT's website, [www.gomdot.com](http://www.gomdot.com), to view a complete list of "Certified DBE Firms" which have been certified as such by the Mississippi Department of Transportation and other Unified Certification Partners (UCP). The DBE firm must be on the Department's list of "Certified DBE firms" as listed on MDOT's website, [www.gomdot.com](http://www.gomdot.com) and approved by MDOT to count towards meeting the DBE goal.

#### **XVI. Notification of Selected CONSULTANT(s)**

The selected CONSULTANT will be notified of their status by the **MDOT**. The CONSULTANT(s) whose PROPOSALS are not selected will be notified, in writing, of the name of the selected CONSULTANT(s) at the same time.

#### **XVII. Debriefing request(s)**

All Debriefing requests shall be submitted in writing on company letterhead within two (2) weeks of the receipt of notification of the selected consultant. The debriefing shall be limited to the merits of the individual CONSULTANT's proposal.

#### **XVIII. Contract Administration**

The CONSULTANT contract will be administered by the **MDOT**. All payments will be made to the contracted prime CONSULTANT by the **MDOT**. The prime CONSULTANT will be responsible for all payments to its partners and/or subconsultant(s).

#### **XIX. Mandatory & Key Personnel Modifications**

Mandatory Personnel and Key Personnel team members are to remain for the duration of the PROJECT and changes cannot be made without prior MDOT approval. Modifications of Mandatory and Key Personnel are discouraged. MDOT will not approve requests for modification without justification. Examples of justification include death of a team member, changes in employment status, bankruptcy, inability to perform, organizational conflict of interest, or other such significant cause. In order to secure MDOT's approval prior to execution of the contract, a written request shall be forwarded to:

Scot Ehrgott, P.E.  
Mississippi Department of Transportation

P.O. Box 1850  
 Jackson, Mississippi 39215-1850  
 Or e-mailed to [sehgott@mdot.state.ms.us](mailto:sehgott@mdot.state.ms.us)

The request shall include:

- A. The nature of the desired change;
- B. The reason for the desired change; and
- C. A statement of how the desired change will meet the required qualification for the position/responsibility.

If MDOT determines that any CONSULTANT personnel are unable to perform satisfactorily in their area of expertise or to communicate effectively, MDOT may require immediate removal of that person(s) from the contract. Substitution of approved personnel may be made, but requires prior approval by MDOT. Substitute personnel shall have comparable qualifications and be provided at no additional cost to MDOT.

**XX. Procurement and Project Schedule**

MDOT strongly desires completion of PROJECT activities in the shortest practical time frame. CONSULTANTS are encouraged to explore and justify means by which the PROJECT schedule may be expedited without jeopardizing the overall PROJECT success or by posing an unacceptable burden to MDOT. MDOT will not sacrifice functionality or quality for the sake of a more rapid implementation of the PROJECT.

SCHEDULE (\*Estimated dates only)

Initial Advertisement date for legal notice	February 1, 2012
Deadline for CONSULTANT’S written questions	February 15, 2012 at 5:00pm
*Posting of answers to written questions	February 24, 2012
*Final contract template posted	February 24, 2012
Deadline for delivery of PROPOSALS	March 8, 2012 at 5:00pm
*Selection of qualified consultant	May 1, 2012
*Notice to Proceed (NTP)	June 15, 2012
*511 begins live operations	No Later Than 6 months after NTP
*** Contract completion	36 months from the NTP.

Note: All times are Central Time.

\*\*\* MDOT intends to execute a 3 year contract with the selected Consultant.

## **PART 2 INFORMATION REQUIRED / SELECTION CRITERIA**

### **I. Format for PROPOSAL**

- A. To be considered, the PROPOSAL must respond to all requirements of this RFP, the Legal Ad, and any addenda. The preferred PROPOSAL length should not exceed thirty (30) pages, exclusive of appendices. All resumes should be included in the appendices. The following should be included in the 30 page maximum: The CONSULTANT's cover letter; org chart; table of contents; summaries and introductions; and any responses to the evaluation criteria (see Part 2, section III.) Pages should be single-spaced, one-sided, 8.5" by 11" with margins of at least one inch on all four sides. No more than five pages may be 11" by 17", but they will count as two sheets each against the preferred 30-page maximum. Information within the preferred 30-page limit of the PROPOSAL should be complete and sufficient in scope for the selection committee to evaluate the CONSULTANT. Also, all text information in the preferred 30-page limit should be shown in a readable font, size 12 points or larger. **The COST-PROPOSAL shall be provided in a sealed envelope and clearly identified on the outside of the sealed envelope. A Consultant's COST-PROPOSAL that is not provided in this manner will be deemed non-responsive.** The COST-PROPOSAL and section dividers will not be counted as part of the preferred 30-page maximum.

Any formatting preferences indicated in this RFP may be considered when evaluating the quality of the firm's proposal.

### **II. Requirements of the PROPOSAL**

Consulting firms interested in providing these services may so indicate by furnishing the Department **six (6) copies and one CD (pdf format)** of a PROPOSAL and one copy of the COST-PROPOSAL in accordance with Part I, IX. As stated in Part 2, the COST-PROPOSAL shall be provided in a sealed envelope and clearly identified on the outside of the sealed envelope. The CD shall not include the COST-PROPOSAL. The CONSULTANT shall divide their PROPOSAL into the following sections as listed below, clearly separated by tabs or similar means. MDOT reserves the right to obtain references from any source listed in the PROPOSAL and any other source deemed appropriate for any of the requirements/criteria listed in this RFP. The PROPOSAL should provide as a minimum the following information:

#### **A. Provide a Cover Letter**

Provide a cover letter and introduction specifying the name and complete description of the PROJECT defined in the Legal Ad, the name of the prime CONSULTANT and any of its subconsultant(s), the firm's size and organizational structure, the name

of an individual who will be the single point of contact throughout the selection process, and the location and address of the office of the firm which will be coordinating efforts for the PROJECT. In addition, the CONSULTANT must note if this is a joint venture. It is understood that this PROPOSAL shall be good for at least 120 days from the submission due date.

**B. Identify Mandatory Personnel, Key Personnel, and Provide Resumes and Org Chart**

The CONSULTANT should propose the appropriate quantity and quality of staff to ensure a successful completion of this PROJECT with limited MDOT support. The CONSULTANT should provide a team organizational chart. The team organizational chart should include each individual's name, job description (for the project), and company of employment. The CONSULTANT should identify the specific individuals that will fill the following positions: **Project Director, Project Manager, and a 511 Specialist (hereby referred to as "Mandatory Personnel")**. The CONSULTANT should provide resumes for each Mandatory Personnel to be assigned to the PROJECT. Resumes must reflect qualifications and recent experience relevant to the Project Description indicated in this RFP. It is preferred that the CONSULTANT's Mandatory Personnel be on the permanent staff of the CONSULTANT or subconsultant, must be capable of communicating clearly and concisely, and have the minimum of five years of current experience in Intelligent Transportation Systems (preferably in 511 systems), project management, system development, and integration (including with Computer Aided Dispatch systems). In addition to the "Mandatory Personnel", the CONSULTANT should propose any "Key Personnel". Key Personnel includes any other staff of the CONSULTANT or subconsultant(s) that the CONSULTANT considers necessary to successfully complete the PROJECT. Resumes for Key Personnel should also be provided. Resumes for Mandatory and Key Personnel should reflect qualifications and recent experience relevant to the project description found in this RFP. A description of these personnel is indicated below:

1. The CONSULTANT Project Director should be provided for overall PROJECT oversight. Activities of the Project Director may include but may not be limited to the following:
  - Establishing and administering controls to ensure the quality of deliverables.
  - Developing (with MDOT) and maintaining a detailed PROJECT Work Plan and schedule.
  - Monitoring PROJECT activities.
  - Providing status reports to MDOT as required in the contract.
2. The CONSULTANT Project Manager should have extensive experience in the management and operation of Intelligent Transportation Systems and 511 systems. The CONSULTANT Project Manager should be empowered to

authorize changes and may address any issues that cannot be resolved by CONSULTANT staff.

3. The CONSULTANT 511 Specialist should have extensive experience in the development, implementation, operation and maintenance of 511 systems of similar size and complexity including integration with Computer Aided Dispatch (CAD) systems and other external data sources. This person is the technical lead on this PROJECT and will lead the technical team.
4. The CONSULTANT's Key Personnel assigned to the PROJECT should have a minimum of three years of experience in the project area to which the member is assigned, be capable of communicating clearly, and possess skills and knowledge necessary to perform successfully on the PROJECT.

### **C. List the Qualifications and Experience of the CONSULTANT**

The CONSULTANT should indicate the following in its PROPOSAL:

1. The CONSULTANT should describe in its PROPOSAL its firm's size and organizational structure and provide its base of operations for this project.
2. The CONSULTANT should provide in its PROPOSAL corporate information that includes the parent corporation and any subsidiaries.
3. The CONSULTANT should furnish information in its PROPOSAL to substantiate the stated experience and practices of its company in the design, development, integration, monitoring, enhancement, and oversight of Intelligent Transportation Systems, specifically 511 and Advanced Traveler Information Systems (ATIS). The CONSULTANT should provide in its PROPOSAL descriptions of a minimum of two successfully deployed projects similar to this PROJECT that includes previous firm experience with design, development and integration of Intelligent Transportation System projects and 511 systems. In addition, the CONSULTANT should list any previous experience with integration of other external data into Advanced Traveler Information Systems (ATIS) and 511 systems. Each project description should include the scope of the project, project time frame, description of the production and operational environment, a project client contact name, contact title, contact phone number, contact fax number, and contact email address.

### **D. Indicate Ability to Meet System Functionality**

The CONSULTANT must indicate how they plan to deliver a 511 system that conforms to the system requirements detailed in Part 3 of this RFP:

1. The CONSULTANT should provide a comprehensive description of their proposed 511 system detailing all system features and functions, with specific emphasis on the requirements in this RFP. The CONSULTANT should provide detailed information on which system requirements in the Technical Specifications have been previously implemented by the CONSULTANT in an operational 511 system.
2. The CONSULTANT should clearly identify how the 511 system will interface with MDOT's Advanced Traffic Management Software (ATMS), msTraffic.com, and external data sources such as, but not limited to, travel time data.
3. The CONSULTANT should identify any software tools, software licenses, and packaged software (database, security, communications, special purpose, etc.) needed for the proposed 511 system. The CONSULTANT should provide a summary of the functions and capabilities of these items and the CONSULTANTs plan for providing this software to MDOT.
4. The CONSULTANT should explain how they will conform to the State and Regional ITS architectures as indicated in Part 3.
5. The CONSULTANT should propose the required number and types of lines – either strictly dedicated lines or a combination of dedicated and shared lines – that will provide the State with the required level of service both for normal and peak period operations. The CONSULTANT should explain how it arrived at the estimate of the required number and type of lines.

#### **E. Submit a Conceptual Work Plan**

The CONSULTANT should provide a Conceptual Work Plan. The Conceptual Work Plan should identify the CONSULTANT's overall approach to planning, designing, testing, delivering, operating, and maintaining of the system; any major activities; project management approach; schedule; coordination efforts required for interfacing between 511 and MDOT ATMS and MSTRaffic.com; and an estimate of the assigned resources for the PROJECT.

1. CONSULTANT should provide a Conceptual Work Plan, including a PROJECT implementation schedule, and PROJECT approach.
2. The Conceptual Work Plan submitted with the PROPOSAL should identify all major PROJECT tasks (as defined in Part 3, Section II of this RFP), major activities within each task, deliverables, detailed schedule, and assigned resources for the PROJECT.

3. The Conceptual Work Plan should allow reasonable time (i.e. no less than 14 days) for MDOT to review and approve task completion deliverables without interrupting the CONSULTANT's continuing progress toward completion of the PROJECT.
4. The Conceptual Work Plan should be structured to minimize disruption and interference with MDOT's daily operations of Traffic Division and MsTraffic.com.
5. The Conceptual Work Plan should provide the CONSULTANTS approach to training MDOT staff in the proper operation of the system.

**F. Submit a separate COST-PROPOSAL indicating those costs listed in Appendix B**

The CONSULTANT shall submit a COST-PROPOSAL to complete the scope of work listed in Part 3 of this RFP. **The COST-PROPOSAL shall be submitted utilizing the Bid Sheet in Appendix B.** The COST-PROPOSAL must be signed by an authorized official of the CONSULTANT who may bind the CONSULTANT to the Unit Costs indicated in Appendix B. COST-PROPOSALS will be evaluated for all CONSULTANTS. All COST-PROPOSALS shall be evaluated based on the formula indicated below:

$$\frac{\text{LOWEST BID}}{\text{CONSULTANT'S BID}} * \text{SCORING FACTOR} = \text{COST SCORE}$$

**COST-PROPOSALS shall be provided in a sealed envelope and clearly identified on the outside of the envelope.**

### **III. CONSULTANT selection criteria**

All PROPOSALS received from CONSULTANT(s) will be reviewed and evaluated by the Selection Committee based on the selection criteria listed below. All responsive PROPOSALS will be reviewed and ranked.

The following areas of consideration, in order of their relative importance to the Selection Committee, will be used in making the selection:

- A. Experience, performance, & qualifications of CONSULTANT staff and Personnel;
- B. Experience of the CONSULTANT with similar projects;
- C. The CONSULTANT's approach to System functionality;
- D. The Conceptual Work Plan – technical approach to the PROJECT;
- E. The cost provided in Appendix B;
- F. Quality of PROPOSAL.

## **PART 3 SCOPE OF WORK**

### **I. Introduction**

Throughout the United States, public agencies are implementing 511 systems to provide traveler information to the public. This information ranges from travel times on roadways to construction information to general road conditions. These systems can also provide connections to other transportation information sources (e.g., transit) and to other agencies (e.g., tourism). The Mississippi Department of Transportation (MDOT) desires to have a CONSULTANT design, build, implement, integrate, operate, and maintain a 511 system. The MDOT 511 system will allow users to call a single phone number statewide and, through the use of interactive voice recognition, obtain traveler information statewide on selected roadways. MDOT intends to implement the 511 traveler information system PROJECT statewide.

A 511 traveler information system in Mississippi is the logical extension of MDOT's ongoing efforts to develop an Intelligent Transportation System (ITS) statewide. A statewide ITS Architecture has been completed for the statewide ITS program and four regional ITS Architectures have been completed (ITS Architecture documents are available on [www.gomdot.com](http://www.gomdot.com). These documents may be found under Travel / ITS / Planning / Architectures).

Today, MDOT has a Transportation Management Center (TMC) in place in Jackson that collects traveler information, and MDOT uses its msTraffic.com website to disseminate traveler information to the public. This site provides a variety of traveler information including construction advisories, camera images and incident alerts. The system is fed by ITS devices (cameras and changeable message signs) throughout the State as well as data that is input manually. Additionally, projects are currently underway statewide that further expand the data collection capabilities of the statewide ITS. The intent of this PROJECT is to take this data, supplement it with additional information provided by 511 system provider, and make it available to travelers through a single, easy-to-remember phone number. **MDOT intends to implement the 511 traveler information system statewide within six (6) months from the time MDOT gives the Notice to Proceed to the CONSULTANT.** The service provided by the 511 system will be recognizable and useful to commuters and travelers and other end users of transportation services of all types – one that will significantly improve traveler safety, emergency and enforcement activities.

## **II. Project Tasks**

Services provided under this contract will consist of four major tasks as described below and further defined in Part 3, Section V:

### **Task 1 – System Development and Deployment**

This task includes all work associated with the services provided by the CONSULTANT to design, build, integrate and deploy a fully functional 511 system which meets the Technical Specifications in Part 3, Section V of this document. This task will commence at contract Notice to Proceed and conclude once the system becomes operational, no later than six (6) months after Notice to Proceed. Payment for this task will be on a Lump Sum basis.

### **Task 2 – Telecommunications**

This task includes all recurring costs associated with per minute telephone toll charges. This task will commence once the 511 system is accepted and operational and conclude when the contract is complete. Payment for this task will be on a per minute basis. The estimated number of calls in this RFP is an estimate only and does not guarantee that the full quantity of minutes will be used. If the number of estimated minutes is exceeded during the contract period, a Supplemental Agreement may be executed at MDOT's discretion for additional minutes at the same per minute price as listed in the CONSULTANT's COST-PROPOSAL.

### **Task 3 – Operations and Maintenance**

This task includes ongoing CONSULTANT activities to support the day-to-day operation of the 511 system. Work included under this task includes, but is not limited to, providing ongoing system maintenance, technical support and training ; providing performance measure reports; and providing any other services necessary to keep the system operational in accordance with the performance requirements. This task will commence once the 511 system is accepted and operational and conclude when the contract is complete. Payment for this task will on a per month Lump Sum basis.

### **Task 4 – 511 and MDOT ATMS and MSTraffic.com Integration**

This task includes all work associated with the integration of incident and traveler information, including the integration of travel time data into the 511 system in accordance with the Technical Specifications in Part 3, Section V of this document with the MDOT ATMS and MSTraffic.com systems.

This task will commence at contract Notice to Proceed and conclude once the system becomes operational, no later than six (6) months after Notice to Proceed. Payment for this task will be on a Lump Sum basis. These four tasks are inclusive of all work to be

performed by the CONSULTANT under this contract. Each of the above tasks is measured separately for payment.

### **III. Deliverables for the Project**

Deliverables shall be completed within the time frame specified below. All documentation delivered shall be clear, concise, complete, and in compliance with all standards required by the MDOT Project Manager in conjunction with definition and scheduling of tasks with the CONSULTANT. The CONSULTANT shall revise any documents at the request of the MDOT Project Manager. Deliverables shall include, but shall not be limited to the following items:

- A. Project Management Plan – to be delivered at the beginning of the Task 1 phase.
- B. System Design and Integration Document – to be delivered before the completion of Task 1.
- C. Monthly Status Reports and Quarterly Reviews – to be delivered monthly throughout the duration of the project.
- D. Operations & Maintenance Manual – to be delivered at the beginning of Task 3.
- E. Monthly Performance Reports – to be delivered monthly once the system is operational and proceeds for the duration of the project.

The CONSULTANT shall, as a part of its contractual responsibilities, be responsible for the following:

- A. Attending a planning meeting in Jackson with the MDOT Project Manager after signing of the contract to discuss the business terms of the PROJECT.
- B. Conducting Monthly Status Meetings with the MDOT Project Manager in Jackson or at a mutually-acceptable location. Monthly Status Meetings may be conducted by conference calls at the sole discretion of the MDOT Project Manager. (For purposes of the cost proposal, the CONSULTANT shall assume that a Status Meeting will be conducted on-site in Jackson on a quarterly basis.)
- C. Conducting Quarterly PROJECT Reviews in Jackson or an agreed upon location with the MDOT Project Manager as to the status, review and updates on PROJECT plans, schedules, progress, and performance.

### **IV. MDOT Cooperation:**

It is anticipated upon execution of the Contract, MDOT will provide the following items:

- A. Reasonable access to traveler information and other pertinent data regularly collected and utilized by MDOT via an XML feed. A sample of the available data is detailed in Appendix A.
- B. Reasonable access to the MDOT TMCs to review current operations, data sources and other information that may be useful in planning, developing and implementing the 511 system.
- C. Reasonable access to MDOT Traffic Engineering, Information Technology and Systems Integrator personnel for the purposes of coordinating project activities.
- D. Submission of the application to the Mississippi Public Service Commission for the provision of the 511 number. This process is underway.

**V. TECHNICAL SPECIFICATIONS FOR 511 TRAVELER INFORMATION SYSTEM**

**A. 511 System Development & Deployment**

**High Level/System Requirements:**

- 1. CONSULTANT is responsible for accessing the data available from the msTraffic.com website and the ATMS software and is also responsible to provide data back to those systems. .
- 2. The system shall be consistent with the statewide ITS Architecture as well as the regional architectures and the Statewide Concept of Operations plan.
- 3. The system shall be a hosted server architecture that is provided, operated, and maintained by the CONSULTANT in an offsite location.
- 4. At a minimum, the following information shall be available in the 511 system to the extent that data is available from ATMS software and MsTraffic.com for all Interstates and Mississippi State Routes:
  - a. Road conditions
  - b. Construction and maintenance projects (Includes current, 24 hour, 72 hour, week and or weekend planned)
  - c. Road closures and major delays
  - d. Incident information (includes location, severity, and expected duration of various incident types, such as vehicle crash, debris, construction, etc.
  - e. Emergency Alerts including Amber Alert notices. This may also include evacuations, airport closures, etc.

5. Callers shall have the ability to reach a MDOT TMC Operator for assistance and in the event a MDOT TMC Operator is not available, leave comments that can later be retrieved by MDOT.
6. The 511 system shall archive caller comments for a minimum of one (1) year.
7. The 511 system shall use an interactive voice response (IVR) system with speech recognition and concatenated speech as the primary interface with callers.
8. All new equipment shall be located off-premises, except for telecommunication lines and terminations required to support the data transfer from the MDOT ATMS and MSTraffic.com Systems to the CONSULTANT's IVR and telephony platform.
9. The 511 system shall comply with state and federal accessibility requirements.
10. The CONSULTANT shall be responsible to assure that all telecommunication services, all servers, and all other equipment provided will be compatible with the type of call transfer used.
11. CONSULTANT shall provide a separate test environment and phone number for testing changes to the system.
12. The 511 system shall be automated to the extent possible.
13. Touch-tone capabilities shall be available throughout the system.
14. It shall be possible for a caller to use speech recognition at one stage of the call and touch tone at the next, or vice versa.
15. Recordings and concatenated speech shall utilize professional voice talent, which shall be approved by MDOT.
16. Concatenated speech is required as the primary speech engine. Text-to-speech is allowed to be used in situations where words or phrases are not available in the concatenated speech library.
17. The CONSULTANT shall design the menu structure to follow the National 511 Coalition Guidelines.
18. System shall have a maximum call length at which the call shall be automatically terminated.
19. System shall have a message stating that conditions may vary from those provided.
20. System shall provide a date and timestamp to a caller that is updated every time new data is pulled from MDOT, regardless of whether or not the information has changed.
21. Messages shall be updated at least every 5 minutes.
22. System shall provide "condition information" in route specific form by segment. Segment definitions will be defined during the design phase.
23. System shall provide "condition information" in a regional report. Region definitions will be defined during the design phase.
24. System shall provide landmark information versus milepost information, or have the capability of providing both as an option to

MDOT. MDOT will work with CONSULTANT during the design phase to define the appropriate landmarks.

25. Upon reaching the maximum time of the call and prior to call termination, a message shall inform the caller they are approaching the maximum call duration.

### **Floodgate Capabilities Requirements**

1. The 511 service shall allow MDOT to record floodgate messages to be inserted at the Main Menu or any sub-menu within the system's structure.
2. The system shall allow floodgate messages to be interruptible or uninterruptible by setting a parameter specific to each message.
3. If the floodgate messages are set to be uninterruptible, callers will not be able to skip past a floodgate message, but once the floodgate message has been played, the 511 service will automatically continue with the same call flow that was being performed prior to the floodgate message.
4. If floodgate messages are set to be interruptible, then a caller can barge-in with a voice or touch-tone command while the floodgate message is playing. The system will terminate the floodgate message and carry out the caller's command.

### **Grammars and Tuning Requirements**

1. The CONSULTANT shall develop grammars for the 511 system that will allow the system to recognize a variety of utterances for a specific action. One specific word or phrase shall not be required to access the information a caller desires.
2. Grammars shall include familiar local names of specific highway segments. MDOT will work with the CONSULTANT to identify such names/terms.
3. The CONSULTANT shall tune the 511 system to accept typical phrases that callers might use from specific states in the system and to recognize a variety of 511 caller accents.

### **Error Handling and Misrecognition Requirements**

1. The 511 system shall be able to request more information from the caller if the system doesn't recognize what the caller says.
2. The system should provide more detailed information or suggestions to the caller as the number of errors increases.
3. Different approaches to error handling or misrecognitions should be provided, depending on the number of errors at a particular stage in the call.

### **Help Menu Requirements**

1. A help menu shall be provided for callers.
2. The help menu shall be specific to the location or state within the system to provide contextual hints and instructions for the proper use of the 511 system.
3. An explanation of the options available to the caller at the time of the help command shall be included.
4. Information on universal navigation shall also be included in the help menu.
5. At each and every step within the 511 system menu, callers shall have the ability to access a help menu by either voice or touch tone command.

### **Short Cut Requirements**

1. The 511 system shall include short cuts that allow callers who are familiar with the system to bypass certain submenu levels to more quickly obtain the information they desire.
2. Callers shall have the option to access the main menu from any location in the menu structure by either voice or touch-tone command.

### **Barge-in Requirements**

1. The 511 system shall include barge-in capabilities that allow callers to speak or touch-tone their selection before the prompt that provides all of the options finishes. The system would terminate the prompt and take the caller to the requested location in the menu structure.

### **Call Transfer Requirements**

1. The 511 system shall provide confirmation to the caller before initiating a call transfer. The confirmation will tell the caller where the call will be transferred and will provide the caller with a way to stop the call transfer and return to the 511 menu structure.

## **B. Telecommunications**

1. The CONSULTANT shall operate and maintain the telephone infrastructure for the day to day operations of the 511 system.
2. The CONSULTANT shall bill MDOT for all per minute toll charges associated with calls to the 511 system.
3. MDOT shall not incur monthly recurring costs beyond per call cost and monthly telephony operations and maintenance costs. No end

user fees shall be incurred except normal landline and cellular charges.

4. CONSULTANT shall establish the telephony platforms including any required 800 number(s).
5. The CONSULTANT shall provide all coordination with cellular and land line telephone companies on changes necessary to support a 511 system. CONSULTANT shall work with the telephone companies to reprogram all switches as required for the project. If the telephone companies charge a fee for the programming of switches, this fee will be paid by MDOT directly to the telephone company.
6. System shall provide wireless and landline telephone dial-in access.
7. The 511 system be capable of servicing calls from Voice Over IP (VoIP) phones.

## **C. Operations & Maintenance**

### **Operational Requirements**

1. The system shall be available 24 hours a day, 7 days a week, 365 days a year, with the exception of scheduled routine maintenance.
2. The system shall respond to 100% of the calls (i.e., there shall be enough lines available such that no caller will receive a busy signal), at least 90% of the time it is in operation, both measured over the length of time the system is in operation and over individual days.
3. The 511 service shall be available to callers at least 99.8% of the time (i.e., out of service less than 18 hours during any continuous 365 day period), including downtime for routine maintenance.
4. The system shall be capable of electronically providing daily and monthly performance and failure reports to MDOT.
5. At a minimum, performance reports shall include the following:
  - a. Total number of calls per hour
  - b. Call types per hour (i.e. on a specific roadway, transfer to another facility, etc.)
  - c. Number of transactions per call (i.e. xx number of calls with y transactions, where a transaction is defined as any user interface with the system).
  - d. Number of successful/failed offsite transfers
  - e. Phone call duration statistics
  - f. Number of calls by the toll free number
  - g. Call transfers per type (to public transit system, to airports, to 511 systems in bordering state, etc.)
  - h. Number of simultaneous calls and their total call time/average call time and maximum call time
  - i. Comments left by users
  - j. Type of failure
  - k. Time of failure

- l. Time MDOT and CONSULTANT were notified of the failure
- m. The time the failure was repaired
- n. What was repaired

### **Maintenance and Failure Requirements**

1. CONSULTANT shall monitor the telephony system to ensure that information provided to callers is accurate and menu options are functioning correctly.
2. CONSULTANT shall provide technical support for system 24 hours per day/7 days per week for the term of the contract. The CONSULTANT shall monitor system operation and in the event of a malfunction, the CONSULTANT shall initiate a response within 2 hours.
3. Maintenance shall be approved by MDOT prior to taking the system offline. Routine maintenance will not be performed during peak times of 6 a.m. to 10 p.m. central time.
4. The CONSULTANT shall provide a schedule of routine maintenance to MDOT's project manager 30 days in advance of maintenance.
5. CONSULTANT shall monitor the CONSULTANT's data feed, network, and facility infrastructure 24 hours a day, 7 days a week, 365 days a year, and respond to failures.
6. CONSULTANT shall monitor MDOT's data feed and notify MDOT if the data feed has failed or if the file is older than one (1) hour.
7. System shall have an automated process in place to send notification to the CONSULTANT and the State if the CONSULTANT data feed or facility infrastructure experiences a failure.
8. In the event MDOT's and/or CONSULTANT's data feed fails, the system shall use the most recent "condition information" until it has become older than a user defined threshold in minutes. The phone system shall then provide a message to users that due to technical difficulties updated conditions are not available and also provide callers with the last known "conditions information" and the associated time from the last update.
9. CONSULTANT shall provide an automatic system backup in the event of power loss at the server location.
10. The CONSULTANT shall repair a failure on the CONSULTANT side within 24 hours.
11. The CONSULTANT shall provide a minimum of sixteen (16) hours training to up to twentyfour (24) MDOT personnel on the operations of the 511 system and a minimum additional sixteen (16) hours training for up to six (6) MDOT personnel on the administration of the 511 system. MDOT will provide facilities for training in the Jackson area.

**D. 511 and Advanced Traffic Mangement System (ATMS) Integration**

The Consultant shall integrate the 511 system with MDOT’s ATMS such that:

1. The interface to the 511 system shall be through the MDOT ATMS Software.
2. All traveler information data and alerts sent to the 511 system shall be sent via the ATMS; inclusive but not limited to, CAD data, travel time data, and incident or event data, both internal and external to MDOT.
3. Speed and travel time data provided by the consultant shall be sent to the ATMS software
4. Performance data from the 511 system shall be importable into the MDOT ATMS based Data warehouse

The integration of the 511 with the MDOT ATMS is intended to enable the functions and operational flows between the ATMS and 511 systems to occur seamlessly. **It is required that any and all information made public via the 511 system be first “deconflicted” via the ATMS, including the speed and travel time data provided by the CONSULTANT.** It is not the responsibility of the **CONSULTANT** to manage how the deconflicting of multiple data sources will occur within the ATMS, only to ensure that the systems are integrated such that the functions listed above are provided for and that **all information is routed through the ATMS prior to going out via the 511.**

The 511 shall also maintain and perpetuate the data necessary to generate performance measure reports on and for the 511 system.

Integration will be inclusive of:

1. All Travel Time data and CAD data systems provided by 511 or any third parties data must be in XML format compatible for input to MSTraffic.com and the current ATMS C2C module to feed to its Incident manager for de-conflicting of incidents.
2. All Data provided to MDOT’s 511 system through 511 project, including but not limited to Travel Times and or speed data, 511 IVR audio files shall be available to MDOT for its use on other MDOT ITS systems such as DMS, MS Traffic.com, or HAR systems, without any additional royalties, tariffs, service fees or use charges of any kind. (Note, this is not inclusive of raw data used to create average speeds or travel times on travel time segments)
3. The 511 system will accept incident information from the MDOT ATMS and MSTraffic.com in XML format for use in the 511 system and also provide data back to those systems in XML format.

4. CAD data provided by 511 will be provided to the MDOT ATMS for use of the ATMS de-conflicting functions before the use of CAD data with 511.
5. CONSULTANT provided 511 shall be capable of accepting text script files from the ATMS system and create audio files from its concatenated speech engine and provide back to MDOT's ATMS system for its use on other MDOT ITS systems such as DMS, MS Traffic.com, or HAR systems, without any additional royalties, tariffs, service fees or use charges of any kind.

### **Travel Time and Speed Data**

The CONSULTANT shall provide travel time data to populate the 511 system. Travel time data shall meet the following requirements:

1. Travel time and speed data shall be provided for all Interstate Highways and for State Highways 6, 25, 45, 61, 49, 98, 90, 302 and 78.
2. Travel time and speed data shall be updated no less than every 5 minutes.
3. The Consultant shall provide travel time and speed data to the MDOT ATMS and MSTraffic systems in XML feeds for data archiving of travel time information and for use in the ATMS and MSTraffic systems and their subsystems such as ATMS user screens and maps, DMS, HAR, or MSTraffic Website without any additional royalties, fee, traffics, service fees, or additional charges of any kind. (Note, this is not inclusive of the raw data used to calculate the travel times or average speeds)

## PART 4

### APPENDICES

#### Appendix A Sample Data Format

From <http://www.msTraffic.com/rssAlerts.aspx>

```
<item>
  <title>I-20W from Intersection of US 61 South to Washington St Exit</title>
  <link>http://www.msTraffic.com/default.asp?loadAlertid=7706&lat=32.309478266904
03&lon=-90.89495658874512&zoom=13</link>
  <description>Westbound Outside Lane(s)and Exit Ramp, Moderate Traffic Impact,Bridge
Repair/ Inspection , 4/28/2009 8:00:00 AM-4/28/2009 5:00:00 PM</description>
  <guid isPermalink = "false">loadalert7706</guid>
  <trafficAlert:alertImageURL>http://www.msTraffic.com/images/mapIcons/alert.png</traffic
Alert:alertImageURL>
  <trafficAlert:county>Warren</trafficAlert:county>
  <trafficAlert:lanesAffected>Westbound Outside Lane(s)and Exit
Ramp</trafficAlert:lanesAffected>
  <trafficAlert:begin>4/28/2009 8:00:00 AM</trafficAlert:begin>
  <trafficAlert:end>4/28/2009 5:00:00 PM</trafficAlert:end>
  <trafficAlert:impact>Moderate</trafficAlert:impact>
  <trafficAlert:workType>Bridge Repair/ Inspection</trafficAlert:workType>
  <trafficAlert:additionalInfo/>
  <trafficAlert:emergency>>false</trafficAlert:emergency>
  <trafficAlert:nightwork>>false</trafficAlert:nightwork>
  <trafficAlert:marine>>false</trafficAlert:marine>
  <trafficAlert:wideload>>false</trafficAlert:wideload>
  <trafficAlert:status>new 4/28/2009 8:20:39 AM</trafficAlert:status>
</item>
```

ATMS XML Format

## Appendix B

### Bid Sheet

Item	Quantity	Unit Cost	Total
System Development and Deployment	Lump sum	\$_____	\$_____
Telecommunications	4,500,000 minutes *	\$_____ per minute	\$_____
Operations and Maintenance	30 months **	\$_____ per month	\$_____
511 and MDOT ATMS and ATIS (MSTraffic) Integration	Lump sum	\$_____	\$_____
<b>TOTAL</b>			\$_____

Notes:

\* Telecommunications quantities are for purposes of bid comparison only.

\*\* Actual Operations & Maintenance period will be from Acceptance of system development and deployment to the end of the Contract. 30 months only represents estimates.

**SIGNATURE:** \_\_\_\_\_

Authorized official to bind the Consultant to the above Unit costs