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CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701-2724

PLANNING DEPARTMENT


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MEMORANDUM

To: Legal and Finance Committee

From: Patsy Horton,  Transportation Planning Coordinator

Date: June 20, 2002

Re: Intelligent Transportation Systems (ITS) Request for Proposals

Attached is a Request for Proposals for the preparation of a Master Plan for an Intelligent Transportation System (ITS). An ITS project is any project that involves the application of electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system. The request for proposals identifies two project phases: a needs assessment regarding transportation issues and how ITS can address those transportation issues and a priority listing, with anticipated costs, of those transportation issues based on the transportation needs. The proposal also identifies an optional third phase to define a local ITS architecture for the area's ITS requirements. This local ITS architecture would provide a framework for planning, defining and integrating the local ITS.

The Executive Policy Committee of the Metropolitan Planning Organization unanimously approved the Request for Proposals at its June 19, 2002 meeting. Funding for this project is provided by 80% Federal highway planning funds and 20% local match. The local match is available from funds within the Transportation Planning Division Budget (706).



EQUAL HOUSING
OPPORTUNITY

EQUAL OPPORTUNITY EMPLOYER

REQUEST FOR PROPOSALS

Intelligent Transportation Systems Master Plan for Integration Strategies

The Rapid City Area Metropolitan Planning Organization (MPO) is seeking the services of a consultant to undertake a two phase Intelligent Transportation Systems (ITS) Integration Strategy.

BACKGROUND

The Rapid City Area MPO is committed to ITS development. The concept of ITS is an integral part of the MPO transportation planning process, including the expansion of a closed loop traffic signal system and coordination with the recommendations in the South Dakota Department of Transportation's (SDDOT) Rural ITS Study.

The estimated population of the Rapid City Area MPO is currently 78,000 persons. Although much of Rapid City is experiencing growth, several major factors account for the expansion. This area experiences some of the heaviest commercial and tourist traffic in the entire Black Hills region. Additionally, the City of Rapid City is a regional hub that draws from a four-state area (South Dakota, Montana, Wyoming and Nebraska). Motorists travel to Rapid City for employment, health care, shopping, entertainment, recreation and financial purposes.

The Rapid City Area MPO is served by one Interstate highway (I-90), several major highways (SD 44, SD 79, US 16 and US 16B), one commercial service airport (Rapid City Regional), heavy rail lines, a public transit system, and a system of bicycle and pedestrian routes.

Across the United States, ITS efforts have historically been directed in five main areas: intermodal transportation systems, intelligent traffic control systems, traveler advisory systems, commercial vehicle information systems, and toll administration systems. Two of these are actively being employed in the Rapid City Area MPO: *intermodal transportation systems and intelligent traffic control systems*.

Due to the regional nature of the Rapid City Area MPO, initiatives within the *intermodal transportation systems* realm were the first to be employed. The Milo Barber Transportation Center, an intermodal facility in Downtown Rapid City, serves as a focal point for transferring riders between transit bus routes, taxis, private autos and pedestrian travel.

Rapid City began implementation of ITS measures in 1995, in advance of the concept becoming a national transportation investment priority. At that time, the City installed a closed loop traffic signal system along four miles of major arterial routes.

Since installation of the closed loop system along the major arterial route in 1995, three other routes have been improved with *intelligent traffic control systems*. These

routes are planned to be as comprehensive as possible with the anticipated future installation of a central control system, video cameras, message signs and emergency equipment pre-emption.

The MPO intends to build upon the SDDOT Rural ITS study to promote ITS applications in and around Rapid City. Once completed, this study will serve as a basis to identify and implement future ITS projects.

PROJECT DESCRIPTION

The first phase is intended to determine the current status of ITS in the region by analyzing the existing transportation issues or problems and what ITS can do to address those issues or problems; establish a strategic direction for the Rapid City Area MPO; and identify what potential improvements/alternatives are available, including start-up and on-going costs and benefits for each alternative. The consultant shall provide a matrix or other method of comparing all the alternatives and the relative merits and/or drawbacks for each of the alternatives as part of the first phase.

The second phase will include a more in-depth review of the preferred alternatives as recommended through the findings of the first phase. This will include a priority list of ITS projects based on needs with associated costs, the creation of a performance measurement system, an implementation schedule for specific projects, and specific guidelines to ensure interoperability with the MPO's partnering agencies.

A third, optional phase, will include development of a local ITS architecture. This local architecture will provide the framework for planning, defining and integrating the Rapid City Area ITS program. The local ITS architecture developed must be consistent with state and national ITS architecture.

SCHEDULE OF PROPOSAL

Proposals shall follow the estimated schedule:

July 26, 2002 – Written proposals due at the Rapid City Planning Department

August 15, 2002 – Interviews of selected respondents at Rapid City City/School Administration Center

August 16, 2002 – Selection of consultant and initiation of contract negotiations

PERIOD OF PERFORMANCE

Contract negotiations between the selected consultant and the City will determine the detailed project scheduling.

The date for initiation of the contract as well as the overall contract performance

period will be negotiated with the selected consultant based on the tentative time schedule listed below.

Phase I – Performance Schedule:

- Notice to Proceed – **September 3, 2002**
- Preliminary Findings presented to Technical Committee – **October 18, 2002**
- Preliminary Findings presented to MPO Committees – **November 20, 2002**
- Completion of Final Report – **December 27, 2002**
- Final Report presented to MPO Committees – **February 19, 2003**

Phase II – Performance Schedule

- Preliminary Findings presented to Technical Committee – **February 14, 2003**
- Preliminary Findings presented to MPO Committees – **April 9, 2003**
- Completion of Final Report – **May 9, 2003**
- Final Report presented to MPO Committees – **June 4, 2003**

Final payment and retainage will not be made to the consultant until the Final Report is accepted by the City and Rapid City Area Metropolitan Planning Organization.

GENERAL INSTRUCTIONS

INQUIRIES

Questions about the proposal may arise as proposers are preparing their responses. Inquiries are to be made in writing prior to July 16, 2002 and answers thereto will be mailed to all firms who have received or requested copies of the RFP. Origin of the questions will not be identified. Please direct questions to:

Patsy Horton, Transportation Planning Coordinator
Rapid City Planning Department
300 Sixth Street
Rapid City, SD 57701
(605) 394-4120

SIGNATURE REQUIREMENTS

Proposals must be signed by a duly authorized official of the proposer. Consortia, joint ventures, or teams submitting proposals, although permitted and encouraged, will not be considered responsive unless it is established that all contractual responsibility rests solely with one contractor or one legal entity which shall not be a subsidiary or affiliate with limited resources. Each proposal should indicate the entity responsible for execution on behalf of the proposal team and should include the name of a contact person, address, phone number, fax number and e-mail address.

PROJECT OVERVIEW

PROJECT OBJECTIVES

1. Develop an implementation strategy that will assess existing and future ITS systems, including their functions and information sharing capabilities. The strategy should take into consideration the total life cycle cost of specific projects in the evaluation of alternatives including the relative merits and costs of potential solutions.
2. Completion of a systematic plan for coordinating ITS investments to achieve a system that is integrated with local, state, and federal plans and technologies.
3. Creation of a final product for use by the local, state, and federal partnering agencies that addresses policy and operational issues affecting the successful implementation of the strategy noted in Objective 1 above. This shall include identification of (1) Major ITS initiatives (a program of related projects that are multi-jurisdictional and/or multi-modal), (2) ITS projects of a scale to affect regional integration of ITS systems, and (3) ITS projects that directly support national interoperability.

PROPOSED SCOPE OF SERVICE

Primarily the consultant will conduct the project, with assistance from MPO staff. The consultant shall meet with MPO staff prior to commencement of the project and on a regular basis thereafter to discuss project status and preliminary recommendations.

Project Tasks (Phase I)

The major tasks for Phase I of the project are identified below. The consultant is encouraged to expand on the task descriptions to identify their approach to completing the tasks and identify how the project objectives will be achieved.

- Task 1. Perform a background search on ITS initiatives under way in Rapid City – The consultant shall prepare a technical memorandum describing the findings.
- Task 2. Meet with MPO staff to finalize the ITS deployment plan and initiate establishment of an ITS strategy – The consultant will facilitate a strategic planning session to identify issues facing the Rapid City MPO in implementing ITS deployment as part of its long range transportation planning process.
- Task 3. Public Involvement – The public will be advised and consulted at all steps of the study through the committees of the MPO. Additionally, the consultant will facilitate one public Open House during Phase I to introduce the project to the general public and seek their comments.
- Task 4. Identification and evaluation of ITS strategies – The consultant will identify:
 - Strategies, best practices, and possible ITS program components

pertinent to the Rapid City MPO.

- Identification of the supporting communications infrastructure necessary to implement deployment of ITS.
- Identification of start-up and on-going costs and benefits for each alternative.
- The consultant shall prepare a technical memorandum describing the findings.

Task 5. Completion of the Phase I report – Upon completion of Task 4 and the acceptance by the MPO, the consultant shall prepare and present the Draft Phase I Report to the CAC, TCC and EPC for their approval. The report will include an executive summary; a narrative description of the work performed, the project objectives met and the methodologies employed, along with any specific recommendations the consultant may have.

The consultant shall submit 25 bound copies and one unbound original of the draft and after approval, the consultant shall assemble the Final Phase I Report of the study. The consultant shall submit 25 bound copies and one unbound original of the Final Report, along with a CD that contains the text and graphics files included in the report.

Project Tasks (Phase II)

Upon successful completion of Phase I and approval by the CAC, TCC, and EPC, the consultant will be requested to undertake Phase II of the project by the MPO. The major tasks for Phase II of the project are identified below. The consultant is encouraged to expand on the task descriptions to identify their approach to completing them.

Task 1. Establish a performance measurement system for future ITS projects – The consultant will develop a system of performance measures that can be used to quantify the outcomes of specific ITS projects.

Task 2. Establish an implementation schedule of ITS strategies – The consultant will:

- Develop a prioritized schedule of projects, including costs, for implementation based upon the strategies established in Phase I. The projects will employ applicable ITS standards that have been officially adopted by state and federal agencies and be consistent with the National ITS Architecture.
- Recommend methods to best achieve interoperability where multiple standards exist.
- Identify methods to develop, test and deploy specific ITS products and services.
- Address the overall study objectives, desired outcomes, project locations, technical approaches, organizational and management approaches, roles and responsibilities, schedules and milestones, benefits and costs, staffing, and potential funding sources.

- Prepare a technical memorandum describing the findings of Tasks 1 and 2.

Task 3. Public Involvement – The public will be advised and consulted at all steps of the study through the committees of the MPO. Additionally, the consultant will facilitate one public Open House during Phase II to present preliminary findings to the public and seek their input.

Task 4. Completion of the Phase II report – Upon completion of Task 3, the consultant shall prepare and present the Draft Phase II Report to the TAC and UDC for their approval. The report will include an executive summary, a narrative description of the work performed, the project objectives met, the methodologies employed, an analysis of the data collected and specific recommendations based on the results of the analysis.

Task 5. Presentation – The consultant shall be available for a presentation of the final report before the MPO committees.

The consultant shall submit 25 bound copies and one unbound original of the draft and after approval, the consultant shall assemble the Final Phase II Report of the study. The consultant shall submit 25 bound copies and one unbound original of the Final Report, along with a CD that contains the text and graphics files included in the report.

Project Tasks (Phase III)

A third, optional phase, will include development of a local ITS architecture. This local architecture will provide the framework for planning, defining and integrating the Rapid City Area ITS program. The local ITS architecture developed must be consistent with state and national ITS architecture. Consultant shall prepare a proposed list of tasks to address developing a local ITS architecture and the final task list shall be negotiated with the successful consultant.

PROPOSAL SUBMISSION

The City of Rapid City must receive your proposal no later than 4:00 p.m. MST, July 26, 2002. The background information, experience and descriptive examples of the proposers work must be submitted with information to accompany the proposal at the required time of submittal. A table showing the hours each person will devote to each task and each person's total hours is required. Except for clerical and drafting functions, resumes of these persons should be included in the proposal. Six (6) copies of each proposal must be submitted to the City of Rapid City. Submissions will be directed to:

Transportation Planning Division
Rapid City Planning Department
300 Sixth Street
Rapid City, SD 57701

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 provided to each proposer.

REJECTION RIGHTS

The City of Rapid City and the Rapid City Area Metropolitan Planning Organization retain the right to reject all proposals and to re-solicit if deemed to be in their best interest.

Selection is also dependent upon the negotiation of a mutually acceptable contract with the successful proposer.

OWNERSHIP OF PROPOSALS

All proposals become the property of the Rapid City Area MPO. The Rapid City Area MPO reserves the right to reject any and all proposals submitted. The MPO is not responsible for any costs incurred by proposers, including proposal preparation, prior to execution of a contract.

INSURANCE

Any and all agreements resulting from this request for proposals shall require the successful Consultant to provide and maintain professional liability insurance as well as worker's compensation, public liability and property damage insurance in amounts set for by the City policy in force at the time of the agreement or subsequent revisions of said policy.

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.

PROHIBITED INTEREST

No member, officer, employee of the City or State, or member of its governing body or of a local public body having jurisdiction within the City's service area, during his or her tenure or one year thereafter, shall have any interest, direct or indirect, in any resultant contract or the proceeds thereof.

TAXES

The contract amount submitted by the consultant should take into consideration the fact that all sponsoring entities associated with the proposed project are exempt from all state taxation, including state sales tax.

SELECTION PROCESS

A study team will review responses to this Request for Proposal that meet the requirements and received prior to the designated closing date.

Upon review of qualified proposals, the committee will designate the most qualified firms as finalists based on professional qualifications, costs and financial data. The selected finalists will appear for an oral presentation and evaluation by the committee which then will select a firm. The selected consultant will be notified and contract negotiations will commence. Upon the completion of negotiations, the City of Rapid City, the Rapid City Area Metropolitan Planning Organization and the South Dakota Department of Transportation must approve the contract before any work can begin. Federal funding will be utilized in this study and thus the consultant will be subject to all of the federal contracting requirements which are incurred as a result.

PROJECT APPROACH

The proposal should demonstrate the consultant's understanding of the scope of the project, summarizing the key activities to be undertaken, and explaining how the MPO needs will be fulfilled. The proposal should detail a work plan that addresses all elements of the project, describes the consultant's proposed approach to each task, and justifies the methodology employed.

The proposal should identify the schedule outlining the time from the Notice to Proceed to completion of the final products (Phase I and Phase II Reports). The schedule should indicate the starting and completion dates of each task and other milestones. The study shall be completed and final products submitted to the MPO by the dates specified in Section I.

The proposal shall include a description of the consulting firm and a statement of the firm's qualifications to perform studies of this type. Additionally, the proposal shall include a list of project personnel including their role in the project, an organizational chart, and resumes detailing the project personnel's work on related projects.

The consultant should identify the study process utilized on other significant projects of similar scope and magnitude as well as the process envisioned for this project. Include within this proposal the process envisioned for incorporating the specialized disciplines of planning and engineering. The specific procedures and methods proposed for coordinating the requirements of the Federal Highway Administration, the South Dakota Department of Transportation, the City of Rapid City, and the Rapid City Area Metropolitan Planning Organization shall be detailed in the proposal.

QUALIFICATIONS, COSTS AND FINANCIAL DATA

Those firms submitting proposals will be evaluated according to the qualification of the firm in terms of experience, the ability to perform and manage the work, and the ability to work within a schedule and within a fixed budget. Proposers must submit a description of prior work related to the scope of work previously described. Particular emphasis will be placed on the qualifications of the firm's key staff, such as the project manager and all staff involved in the project. Proposals should include name(s) and telephone number(s) of personnel in your organization authorized to negotiate the contract. Note: Upon negotiations of the final contract, any changes in personnel by the consultant must receive prior approval by the Project Manager.

The proposal must include a list of similar studies and project descriptions undertaken by the firm (preferably project personnel) with beginning and ending dates, and name, address, phone number, fax number, and e-mail address of a contact person for each reference.

The consultant will be reimbursed for all labor required to satisfactorily complete the

work on a cost plus a fixed fee basis. Allowable costs will be direct salary, material and equipment, direct cost, payroll additive, and general overhead. Any and all subcontracts must contain the same provisions of the prime contract.

Cost estimates for the project should be provided in the form of a not-to-exceed amount, supported by cost details documenting direct labor, overhead, fee, expenses, travel subcontracts, and project total. A schedule of hourly rates and estimated commitment of hours by task and labor category must be provided for all personnel involved in the project. Each firm submitting a proposal must provide a time and cost estimate for each phase of the study based on the services enumerated and the assumed project time frame.

Project fee and cost estimates are not considered binding evaluation criteria.

SELECTION CRITERIA

A selection committee will evaluate proposals based on the following criteria:

Technical Ability, Past Experience and Reliability (30%) – The following will be evaluated as they apply to the proposing firm to be utilized: technical approach; demonstrated knowledge; demonstrated experience with similar assignments; knowledge of innovative ITS solutions; a satisfactory record of performance; and knowledge of and ability to meet applicable federal, state and local requirements.

Project Organization and Management (30%) – Project organization and management will be evaluated including the following: the project team; management procedures; ability to provide reasonably accurate costs; past record of performance; and the familiarity of the firm with the Rapid City MPO area.

Compensation (20%) – The MPO is soliciting expertise first and foremost and will use compensation factors in relative magnitude to the overall agreement responsibilities.

Other factors (10%) – Proposers may submit additional information that may be of benefit to the MPO as part of this project.

Completeness of proposal submitted (10%) – Incomplete or vague proposals may be rejected.

Upon definition of an appropriate detailed scope of work and schedule, a contract will be negotiated with the selected firm.

GENERAL EXPERTISE REQUIRED

The services envisioned within this Request for Proposal includes all of the transportation planning, civil engineering and traffic engineering disciplines necessary for the proper execution of the project desired.

MISCELLANEOUS

All previously mentioned information is available to the selected consultant as well as the Operations Plan for the Rapid City Area Metropolitan Transportation Planning Process, the latest available traffic counts, a map of the study area, the Rapid City Major Street Plan, and any other maps or documents pertinent to the development of

this study.

The City of Rapid City, the Rapid City Area Metropolitan Planning Organization and the South Dakota Department of Transportation retain the right to amend the contract with the successful proposer to include other possible areas of concern with this project.

NON-DISCRIMINATION/AMERICANS WITH DISABILITIES ACT

The successful consultant shall comply with the requirements of Title 49 CFR Part 21 and Title VI of the Civil Rights Act of 1964. The successful consultant shall submit upon request quarterly Title VI (civil rights) State of Contractor reports to the South Dakota Department of Transportation. The successful Consultant shall provide services in compliance with the Americans with Disabilities Act of 1990.

CONTRACT PROVISIONS AND ASSURANCES

Federal funds received by the Rapid City Area Metropolitan Planning Organization will be used as a component of the overall funding of this project. Accordingly, the selected consultant will be required to comply with all applicable Federal regulations and contracting provisions required by the Federal funding authority, including 49 CFR Part 31 - Allowable Costs, Civil Rights, Minority Business Enterprise, and other applicable assurance provisions. Additionally, the contract must comply with state and local requirements applicable to such contracts.