



COORDINATING RESEARCH COUNCIL, INC.

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November 19, 2018

In reply, refer to:

CRC Project No. CM-138-18-1

Dear Prospective Bidder:

The Coordinating Research Council (CRC) invites you to submit a written proposal to provide services for “Driveability Workshop to Train and Calibrate Raters Using the CRC Trick Car” (CRC Project No. CM-138-18-1). A description of the project is presented in Exhibit A, “Statement of Work.”

Please indicate by letter, fax, or email by **December 3, 2018** if you or your organization intends to submit a written proposal for this research program. CRC will answer technical questions regarding the Request for Proposal if they are submitted in writing. CRC will then return written answers to all of the bidders, along with a copy of the original questions.

A CRC technical group composed of industry representatives will evaluate your proposal. CRC reserves the right to accept or reject any or all proposals.

The reporting requirements will be monthly progress reports and a summary technical report at the end of the contractual period. The reporting requirements are described in more detail in the attachment entitled “Reports” (Exhibit B).

The proposal must be submitted as two separate documents. The technical approach to the problem will be described in part one, and a cost breakdown that is priced by task will be described in part two. The cost proposal document should include all costs associated with conducting the proposed program. The technical proposal shall not be longer than 10 pages in length (not including resumes). The schedule / timeline information should be included in the technical proposal.

CRC expects to negotiate a cost-plus fixed fee or cost reimbursement contract for the research program.

Contract language for intellectual property and liability clauses is presented in Exhibit C and in Exhibit D, respectively.

Important selection factors to be taken into account are listed in Exhibit E. CRC evaluation procedures require the technical group to complete a thorough technical evaluation before considering costs. After developing a recommendation based on technical considerations, the costs are revealed and the recommendation is modified as needed.

Electronic copies of the technical and cost proposals should be submitted to:

Dr. Christopher J. Tennant
Coordinating Research Council
5755 North Point Parkway, Suite 265
Alpharetta, GA 30022

Phone: 678-795-0506
Fax: 678-795-0509
E-mail: ctennant@crcao.org

The deadline for receipt of your proposal is **December 17, 2018**.

Yours truly,

Dr. Christopher J. Tennant
Executive Director

EXHIBIT A

Statement of Work

Driveability Workshop to Train and Calibrate Raters Using the CRC Trick Car

Background

CRC has used trained raters for many years to assess the driveability vehicle performance for test programs. The existing driveability rater pool consist of retirees or from testing facilities. Therefore, CRC sees the need to establish new trained raters for future volatility projects. CRC has not conducted a rater workshop to train and calibrate driveability raters since 2002 (See CRC Report No. 631 2002 CRC DRIVEABILITY WORKSHOP) where a trick car was used to train and calibrate driveability raters by subjecting them on demand to various driveability malfunctions at different intensities. Calibrating raters will improve test result precision. The CRC has a new trick car which was developed under CRC Project CM-138-17.

Objective

The objective of this project is to meet at a common test site to train novice and inexperienced personnel to be driveability raters and to calibrate experienced driveability raters using the CRC trick car.

Test Site

The test site requires a test track with a smooth road service to prevent confusion between driveability malfunctions and response to road bumps.

- Minimum length: 0.7 miles
- Approximately 30 feet wide
- Capable of speeds to 70 mph

Test Procedure

CRC has two driveability test procedures: the CRC Cold-Start and Warmup Driveability Procedure (CRC E-28-94) and a Hot Fuel-Handling Procedure. Only the Cold-Start and Warmup Driveability Procedure will be used because it includes all the maneuvers, malfunctions, and severity levels contained in the Hot-Fuel-Handling Procedure. The two procedures cannot be used at the same time as the required ambient temperatures are very different.

Test Fuel

A single test fuel will be used for all testing because driveability malfunctions will be controlled by the trick car instrumentation. The test fuel must meet the ASTM D4814 requirements for the area and time to ensure malfunctions are not caused by the fuel.

Participants

Trained raters who have rated on CRC programs during the past several years will be contracted to conduct the training. Candidate raters can come from automobile manufacturers, oil companies, independent laboratories, and independent contractors.

Timing

The program should be able to be conducted in under two weeks. This timing includes one day to set up the site and another to clean up the site. It will require four to five days to conduct the program, however a longer time may be an option.

Program

The workshop will begin with classroom discussion led by experienced CRC driveability raters. The driving procedures, malfunctions, and severity levels will be reviewed. A familiarity with the CRC Cold-Start and Warmup Driveability procedure will be helpful. The trainees then will practice the various maneuvers and become familiar with the Cold-Start and Warmup Driveability Procedure. The 2014 Ford Fusion trick car, that was developed in CM-138-17-1, will be used to demonstrate hesitation, stumble, and surge, along with acceleration and deceleration stalls, and idle quality. Malfunctions at trace, moderate, and heavy severity levels will be demonstrated. Once all the trainees have experienced all the malfunctions and severity levels, the trick car will string together several malfunctions. The trainees will then be "tested" on their ability to identify the malfunctions and discern their severity level.

Since this is an evaluation, it would be good to track the progress of the participants. The view is that a pre- and post-test for the different maneuverers be collected and reported. If the sample size is significant, then statistical analysis could be done.

Coordination

It is expected that coordination with CRC is required during the development and execution of the workshop. CRC is considering a direct contract for this coordination but would like to know if the contractor has the capability of providing this service. If so, possible candidates should be mentioned. In addition, this item should be listed as an option.

Costs

Funding will be required to lease the test site and test track. There will be costs to set up the site for testing and later removal. There will be shipping costs to deliver the trick car to the test site and refuel it. There will be travel expenses and costs for the experienced raters that conduct the program. Trainees will be expected to pay their own travel expenses and salaries, along with a registration fee.

Deliverables

The goal is to conduct a workshop for training and calibrating driveability raters in order to have trained raters available for future CRC driveability programs. Possible improvements to the testing procedures may be developed. The project will create documentation for the training procedure, a summary of the workshop, and a lesson learned summary. These items should be in a report format. In addition, a list of newly trained raters, including contact information will be provided back to CRC, but not included in the report.

EXHIBIT B

REPORTS

MONTHLY TECHNICAL PROGRESS REPORTS

The contractor shall submit a monthly technical progress report covering work accomplished during each calendar month of the contract performance. An electronic Microsoft® Word compatible file (<1 MB) of the monthly technical progress report shall be distributed by the contractor within ten (10) calendar days after the end of each reporting period. The report shall contain a description of overall progress, plus a separate description for each task or other logical segment of work on which effort was expended during the reporting period.

FINAL REPORT

The contractor shall submit to or distribute for CRC an electronic pdf-compatible copy transmittable via email) of a rough draft of a final report within thirty (30) days after completion of the technical effort specified in the contract. The report shall document, in detail, the test program and all of the work performed under the contract. The report shall include tables, graphs, diagrams, curves, sketches, photographs and drawings in sufficient detail to comprehensively explain the test program and results achieved under the contract. The report shall be complete in itself and contain no reference, directly or indirectly, to the monthly report(s).

Within thirty (30) days after receipt of the approved draft copy of the final report, the contractor shall make the requested changes and deliver to CRC thirty (30) hardcopies including a reproducible master copy of the final report. The final report shall also be submitted as an electronic copy in a pdf or pdf-convertible file format. The final report may be prepared using the contractor's standard format, acknowledging author and sponsors. An outside CRC cover page will be provided by CRC. The electronic copy will be made available for posting on the CRC website.

EXHIBIT C

INTELLECTUAL PROPERTY RIGHTS

Title to all inventions, improvements, and data, hereinafter, collectively referred to as (“Inventions”), whether or not patentable, resulting from the performance of work under this Agreement shall be assigned to CRC. Contractor X shall promptly disclose to CRC any Invention which is made or conceived by Contractor X, its employees, agents, or representatives, either alone or jointly with others, during the term of this agreement, which result from the performance of work under this agreement, or are a result of confidential information provided to Contractor X by CRC or its Participants. Contractor X agrees to assign to CRC the entire right, title, and interest in and to any and all such Inventions, and to execute and cause its employees or representatives to execute such documents as may be required to file applications and to obtain patents covering such Inventions in CRC’s name or in the name of CRC’s Participants or nominees. At CRC’s expense, Contractor X shall provide reasonable assistance to CRC or its designee in obtaining patents on such Inventions.

To the extent that a CRC member makes available any of its intellectual property (including but not limited to patents, patent applications, copyrighted material, trade secrets, or trademarks) to Contractor X, Contractor X shall have only a limited license to such intellectual property for the sole purpose of performing work pursuant to this Agreement and shall have no other right or license, express or implied, or by estoppel. To the extent a CRC member contributes materials, tangible items, or information for use in the project, Contractor X acknowledges that it obtains only the right to use the materials, items, or information supplied for the purposes of performing the work provided for in this Agreement, and obtains no rights to copy, distribute, disclose, make, use, sell or offer to sell such materials or items outside of the performance of this Agreement.

EXHIBIT D

LIABILITY

It is agreed and understood that _____ is acting as an independent contractor in the performance of any and all work hereunder and, as such, has control over the performance of such work. _____ agrees to indemnify and defend CRC from and against any and all liabilities, claims, and expenses incident thereto (including, for example, reasonable attorneys' fees) which CRC may hereafter incur, become responsible for or pay out as a result of death or bodily injury to any person or destruction or damage to any property, caused, in whole or in part, by _____'s performance of, or failure to perform, the work hereunder or any other act of omission in connection therewith.

EXHIBIT E

PROPOSAL EVALUATION CRITERIA

- 1) Merits of proposed technical approach.
- 2) Previous performance on related research studies.
- 3) Personnel available for proposed study – related experience.
- 4) Timeliness of study completion.
- 5) Cost.