

Information and Instructions
for Preparing Proposals
for the
**Transportation Research Board's
Cooperative Research Programs**

Updated November 2020



Transportation Research Board

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

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I General Information

This brochure consists of six sections. Sections I through V have the respective objectives of describing (I) the Cooperative Research Programs (CRP) and their administration by the Transportation Research Board (TRB), (II) the sequence of events leading to research, (III) who is eligible to submit a proposal, (IV) administrative requirements of contractors, and (V) specific instructions for preparing and submitting proposals on TRB Cooperative Research Program projects. Section VI provides figures that can be used in preparing a proposal and a short list of abbreviations and terms that appear in this document. **Readers are cautioned that a thorough understanding of Sections IV and V is necessary to the preparation of acceptable proposals. To facilitate the review of multiple proposals by the project panels and TRB staff, compliance with the instructions for preparing proposals in Section V is mandatory. Questions should be addressed to the CRP Program Officer listed in the Request for Proposal (RFP) prior to proposal preparation to minimize the risk of proposal rejection.**

The Transportation Research Board

TRB is one of seven major divisions within the National Academies of Sciences, Engineering and Medicine, a private, nonprofit institution. TRB's varied activities annually engage thousands of engineers, scientists, and other transportation researchers and practitioners from the public and private sectors and academia, all of whom contribute their expertise in the public interest by participating on TRB committees, panels, and task forces. The program is supported by state transportation departments, federal agencies including the component administrations of the U.S. Department of Transportation (U.S. DOT), and other organizations and individuals interested in the development of transportation.

Need for Cooperative Research

Although many transportation problems are unique and of only local concern, there are, likewise, numerous, common transportation challenges experienced at a regional or national level. These challenges, which are of interest to many agencies and organizations, can be solved most effectively through systematic, well-designed research using a coordinated approach. In doing so, the Cooperative Research Programs operate complementary to, rather than as a substitute for (or duplicate of), other research programs.

In recognition of these needs, TRB has worked with the transportation industry to establish the National Cooperative Highway Research Program (NCHRP), the Transit Cooperative Research Program (TCRP), the Airport Cooperative Research Program (ACRP), and the Behavioral Traffic Safety Cooperative Research Program (BTSCR). More information on each program's scope, funding, and organization is available at the webpage for [TRB's Cooperative Research Programs](http://www.trb.org/AboutTRB/Public/AboutCooperativeResearchPrograms.aspx).¹

These programs do **not** operate on a grant basis. They are applied research programs which issue contracts to produce practical, implementable, and timely solutions to problems facing transportation agencies and organizations.

Because TRB's cooperative research process seeks practical solutions for operational problems, proposals must indicate strong capability gained through extensive, successful experiences in the

¹ <http://www.trb.org/AboutTRB/Public/AboutCooperativeResearchPrograms.aspx>

relevant problem areas. Consequently, those interested in submitting a proposal should first make a frank and thorough self-appraisal to determine whether they possess the capability and experience necessary to ensure successful completion of the project.

Cooperative Research Project Administration and Oversight

Each cooperative research program has an oversight committee that is responsible for (1) soliciting research needs, (2) evaluating and selecting research topics, (3) setting project priorities and recommending funding levels, (4) ensuring the dissemination of research results, and (5) evaluating program effectiveness. The oversight committees are supported in these efforts by the staff of TRB acting as secretariat to the committees. TRB is responsible for administration, technical review, and acceptance of research projects that are referred by the committees to the National Academies of Sciences, Engineering and Medicine for acceptance and approval. Following project approval, TRB administers the performance of individual research projects.

Project Panels

Each of TRB's cooperative research projects is assigned a panel consisting of outstanding individuals, knowledgeable in the specifics of the particular project, who provide technical guidance while the research is in progress. Panel membership, which is reported in the [TRB Online Directory](https://www.mytrb.org/DirectorySearch.aspx),² may include persons from transportation agencies and organizations, the federal government, universities, national associations, institutions with related interests, industry, and other agencies. Members are appointed as individuals possessing expertise in specialized areas and not as representatives of their employer. The Cooperative Research Programs have clearly established procedures for balancing bias and scrupulously avoiding personal and organizational conflicts of interest. Also, as a condition for accepting appointment to a panel, members are prohibited from submitting proposals on projects under their jurisdiction.

The project panel is responsible for (a) drafting a project statement that includes the research objective, list of deliverables intended to be submitted during the course of the research and/or a list of tasks to be performed, budget, and schedule, which is then issued as a request for proposals (RFP); (b) reviewing research proposals and selecting the researcher; (c) reviewing progress of research; (d) providing technical oversight of the research in progress; (e) reviewing and evaluating project deliverables (including the final deliverables) as to the accomplishment of objectives and suitability for publication and products for implementation; and (f) making recommendations regarding follow-up activities after contract completion.

² <https://www.mytrb.org/DirectorySearch.aspx>

II Sequence of Events for Research

Problem Statements

Research programs to be administered under TRB's Cooperative Research Programs are referred annually to the National Academies of Sciences, Engineering and Medicine. Each program consists of a group of research problem statements considered to be of national importance that have been submitted from industry practitioners.

Project Statements

Following the National Academies of Sciences, Engineering and Medicine acceptance of each program, project panels are convened to prepare research project statements that describe the problems and the specific objectives for problem solution. The project statements include a title, a contract dollar limit, a schedule for submittals and for the research, and contact information for the CRP Program Officer managing the project. The project statement also includes a *background* that describes the research need, an *objective* clearly stating the resulting product and its use, it may provide a list of *tasks* describing the panel's initial thinking on the steps needed to successfully conduct the research, and *special notes* listing unique considerations relative to proposal preparation. If a list of tasks is not provided, the project statement will include the deliverables that should be included in the *research plan*, allowing the proposer the opportunity to determine and describe the tasks they intend on performing to achieve the objective(s) of the project.

All project statements will require as a final deliverable a stand-alone technical memorandum titled "Implementation of Research Findings and Products. The technical memorandum should (a) provide recommendations on how to best put the research findings/products into practice; (b) identify possible institutions that might take leadership in applying the research findings/products; (c) identify issues affecting potential implementation of the findings/products and recommend possible actions to address these issues; and (d) recommend methods of identifying and measuring the impacts associated with implementation of the findings/products. Implementation of these recommendations is not part of the research project and, if warranted, details of these actions will be developed and implemented in future efforts.

Requests for Proposals

After the project statements have been developed by the panels, they are posted on the Internet during the solicitation period as [Requests for Proposals](http://www.trb.org/Projects/Public/RequestsforProposals.aspx).³ Research agencies and individuals may register at that website to receive e-mail notification of new postings.

Issuance of an RFP does not constitute an award commitment by the National Academies nor does it obligate the National Academies to pay for costs incurred in the preparation and submission of a proposal.

The TRB does not provide pre-proposal briefings or meetings with staff and panels during proposal evaluation or researcher selection. The proposal, therefore, constitutes the sole opportunity for proposers

³ <http://www.trb.org/Projects/Public/RequestsforProposals.aspx>

to state their case. CRP Program Officers are available, however, to provide limited, appropriate information to proposers.

Proposals become the property of TRB, are treated as privileged documents, and are disposed of according to program policies (this includes the possibility that all proposals might be rejected).

Selection of Preferred Contractor and Contract Award

Acceptable proposals (see Section V for guidance on preparing an acceptable proposal) are sent to the panel that prepared the project statement portion of the RFP for their review. Each panelist evaluates and initially ranks the proposals using the following criteria: (1) the proposer's demonstrated understanding of the problem; (2) the merit of the proposed research approach and methodology; (3) experience, qualifications, and objectivity of the research team in the same or closely related problem area; (4) the plan for ensuring application of results; (5) the proposer's plan for participation by Disadvantaged Business Enterprises (DBEs)—small firms owned and controlled by minorities or women; and (6) the adequacy of the facilities and equipment. The panel then reconvenes to collectively and thoroughly discuss the merits of each proposal with the overall goal of choosing the proposal that best conforms to the RFP in a manner most advantageous to the program. The selection is usually made by consensus, although a two-thirds vote is sometimes necessary. Panels are encouraged to identify a second-choice proposal if they believe another proposer could also successfully achieve the project objectives.

Once proposal selection has been made, the proposer submitting the panel's first-choice proposal is notified. This notification includes the panel's comments on the proposal, to which a response may be required. Minor modifications to the proposal also may be indicated. The notification will also include a subaward certifications form to be completed and a request for documentation to support individual cost rates, indirect cost rates, and wage/salary schedules.

The second-choice proposer is notified that it was judged to be a candidate for serious consideration and that its proposal will be held in abeyance during negotiations with the first-choice proposer. In the event that negotiations with the first-choice proposer cannot be conducted successfully, TRB may negotiate a contract with the second-choice proposer.

A contract will then be issued between the National Academy of Sciences (the contracting authority for the National Academies of Sciences, Engineering and Medicine) and the selected proposer. The National Academy of Sciences may (1) reject any or all offers if such action is in its best interest, (2) accept other than the lowest cost proposal, and (3) waive minor irregularities in proposals received. Line items of the budget are examined to determine the reasonableness of the allocation of funds to the various tasks. Proposals that provide for cost sharing at a proposed total cost over and above the total funds available are not encouraged, and the evaluation will be based on the work proposed to be conducted with the advertised funds.

Unsuccessful proposers will be notified, and their proposals will be disposed of in accordance with program policies. A debriefing will be provided to unsuccessful proposers at their request. The debriefing is intended to indicate to the proposers the technical areas in which their proposals were judged weak or deficient and how the weaknesses or deficiencies were factors in their evaluation. The factors constituting the basis for selection of the successful proposer will be identified, but the debriefing will not include a point-by-point comparison of all the elements considered in the evaluation criteria. Neither will there be any revelation of confidential business information, trade secrets, techniques, or

processes of the other proposers, nor will there be any indication of the relative merits or technical standing of the unsuccessful proposers.

Contract Types

Three types of contracts may be issued: cost-reimbursement, cost-plus-fixed-fee, and fixed-price. *Regardless of the contract type, contractors must complete all research tasks and provide all contracted deliverables within the contracted budget amount. Unless specified in the contract, no additional funds will be made available.* Proposers should choose the type of contract best suited to their situation. Each type is described below.

1. *Cost-Reimbursement (CR)*—This type of contract provides for payment to the contractor of allowable costs incurred in the performance of the contract, to the extent prescribed in the contract. This type of contract establishes maximum costs for purposes of (a) obligating funds and (b) setting a ceiling, which the contractor may not exceed (except at the contractor's risk) without prior approval. For this type of contract, it is essential that the contractor's cost accounting system is adequate for the determination of costs applicable to the contract and that appropriate review by National Academy of Sciences personnel during performance will provide reasonable assurance that the effort is proceeding satisfactorily.
2. *Cost-Plus-Fixed-Fee (CPFF)*—This is a cost-reimbursement contract providing for payment of a fixed fee to the contractor. Once negotiated, the fixed fee does not vary with actual costs but may be adjusted with written approval as a result of a subsequent change in the work or services to be performed under the contract. *For Cooperative Research Program contracts, a fee limit has been established of seven (7) percent of contract costs, exclusive of the fixed fees for the subcontractor, if any.* Generally, this form of contract will be used where a cost-reimbursement type of contract is determined to be necessary and there is agreement that the contract may include a contractor fee.
3. *Fixed-Price (FP)*—This type of contract provides for a price that is not subject to any adjustment by reason of the cost experience of the contractor in the performance of the contract. It is appropriate when reasonably definite performance specifications (work plans) are available and whenever firm and reasonable prices can be established at the outset of the effort. Monthly and quarterly progress reports, though required, are not to be considered as defined deliverables in the work plan. Payments under a fixed-price contract are made in accordance with a mutually negotiated payment and delivery schedule.

Proposers should specify their preferred contract type should their proposal be selected. See Section V for specific proposal requirements for each contract type.

Nondiscrimination

Contractors are required to comply with all applicable statutes, regulations, and orders of the U.S. DOT relative to nondiscrimination in federally assisted programs of the U.S. DOT and shall not discriminate against any worker because of race, color, religion, sex, or national origin. In the fulfillment of this provision, the contractor is required to provide all required information and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the National Academies or the U.S. DOT.

Conducting the Research

The selected proposer then undertakes the research under the technical guidance of the project panel and following the Cooperative Research Program's administrative procedures (see Section IV), concluding the effort by submitting the project deliverables.

III Who Can Submit a Proposal

Anyone may submit a proposal in response to RFPs following a self-appraisal of qualifications to determine whether or not the respondent possesses, either singly or by teaming with others, the requisite capability and experience necessary to ensure successful completion of the research project. In the instance of a joint venture, a prime contractor must be designated, with full justification if the prime contractor will not carry out more than 50 percent of the work (budgeted cost).

Research conducted under the Cooperative Research Programs may be conducted by colleges, universities, industry, research institutions and foundations, or consultants. Each of these entities may submit a proposal as long as it shows the possession of extensive, demonstrated capability coupled with a proven experience record in the problem area.

TRB also encourages participation of small businesses, minority-owned firms, and women's business enterprises, as contractors or subcontractors for projects.

Although proposers based outside the United States may respond to RFPs and may be able to document possession of sufficient depth of knowledge of U.S. practice in the research subject areas, the complicated logistics involved in site visits and administration of contracts might make it less likely that such organizations would be selected.

IV Research Administration

After executing the contract, the contractor is expected to pursue the research aggressively and with due regard to the performance period. TRB has developed a [*Procedural Manual for Contractors Conducting Research in the Transportation Research Board's Cooperative Research Programs*](#)⁴ that describes the necessary administrative steps leading to successful research. The key items are described below.

Amplified Work Plan

The contractor will submit (1) PDF electronic copy of an amplified work plan for review and acceptance by TRB via CRPs project management website. This plan, due within 15 days after the contract beginning date, is to provide a detailed expansion of the research approach outlined in the proposal and is not to be in conflict with that approach. The amplified work plan includes (1) a complete description of the tasks to be pursued in the conduct of the research, (2) a work-flow diagram by tasks and time (schedule), and (3) the project budget. It should demonstrate clearly the accomplishment of the research within the specified period and funding, a factor that will be analyzed carefully during the review. The amplified work plan is also the opportunity to address the project panel's comments on the contractor's initial research approach as outlined in its proposal.

Site Visit

At the start of the project, the CRP Program Officer will visit the contractor's office to become acquainted with its facilities and personnel and to review the administrative and fiscal procedures described in the research contract and the *Procedural Manual for Contractors*. Other visits may be made by the staff to maintain liaison with the project throughout the contract period. Annual trips to Washington, D.C., by the principal investigator (PI) for consultation with program staff also may be requested.

Monthly Progress Reports

Within 5 working days following the end of each month during the course of the research, the contractor shall submit a two-part monthly progress report to the CRP Program Officer in electronic (PDF) format and consisting of the following:

1. *Cover Letter*—The cover letter shall provide (a) a clear and complete account of the work performed on each task during the reporting (previous) month; (b) an outline of the work to be accomplished during the next month; (c) a description of any problems encountered or anticipated that might affect the completion of the contract within the time and fiscal constraints as set forth in the contract, together with recommended solutions to such problems (or a statement that no problems exist); (d) anticipated dates of key deliverables (i.e., interim reports, draft final deliverables, and final deliverables); and (e) the contractor's performance relative to its DBE plan.

⁴ <http://onlinepubs.trb.org/onlinepubs/crp/docs/CRPProceduralManual.pdf>

2. *Monthly Progress Schedule*—The monthly progress schedule shall consist of graphical information depicting (a) a schedule of research activities and related current progress, (b) a comparative status of actual and estimated expenditures, and (c) a percentage completion of the subject research.

Quarterly Progress Reports

Quarterly progress reports (QPRs) are required from the contractor and are due within 5 working days following the end of each calendar quarter. Assume that twenty (20) paper copies and one (1) electronic file will be required; however, the requirement for paper copies may be waived by the CRP Program Officer. QPR distribution to the panel (i.e., either directly from the contractor or via the CRP Program Officer) will be determined by the CRP Program Officer. Each QPR includes the monthly progress schedule for the last month of the quarter.

Adherence to Original Research Objectives and Budget Estimates

The research objectives and general tasks presented in the RFP are included as the general scope of work in the contract. The contractor's cost proposal to undertake the research is also part of the agreement and cannot be exceeded. However, to maintain flexibility in conducting research, revisions to the scope may be approved in writing. The most common revision is the researcher's amplified work plan, which typically is an enhancement of the research approach submitted in the proposal. Once the amplified work plan is approved by the panel, it is incorporated by reference in the contract and becomes the binding scope of work in the contract. Throughout the project, the PI and the contractor are expected to manage the expenditure of approved funds in a manner consistent with the overall objectives. Should promising new leads or unproductive lines of inquiry be discovered, the CRP Program Officer must be notified, especially if they might lead to significant deviations from the objectives of the original research. Anticipated major changes in the original estimate must be discussed in advance with the CRP Program Officer, who may then submit a formal request to the Office of Contracts and Grants for negotiation of modifications to the original contract.

Advance Approvals

Under the terms of the contract, the following contract expenditures require prior written approval from the CRP Program Officer even though they are included in the proposal:

1. Equipment having a value in excess of an amount specified in the contract.
2. Travel to scientific or technical meetings. (Foreign travel requires prior approval and compliance with the Fly America Act.) All proposed travel must be in accordance with federal travel regulations.
3. Subcontracts above \$25,000.

Principal Investigator

The research is considered to be under the technical direction of the principal investigator (PI) identified in the proposal, and it is expected that the PI will be available for the full contract period and will have major involvement in the pursuit of the research objectives. Replacement of the PI is subject to the approval of the panel and the CRP Program Officer, who may then submit a formal request to the Office of Contracts and Grants for a contract modification.

Payments

Payments, exclusive of amounts withheld as a performance guarantee, will be made upon submission by the contractor of periodic vouchers (not more often than one a month). Complete instructions for the preparation of vouchers are issued at the time of contract execution.

Subcontracting

Advance written approval is required for subcontracts of \$25,000 or more, even though provision for such is included in the proposal. At a minimum, the proposal should indicate the extent to which subcontractors will be used, the method of identifying subcontractors, and the extent to which competition will be used to secure subcontractors. An itemized budget and justification of the proposed subcontractor are required when submitting the subcontract for approval.

Adherence to Diversity and Inclusion Plan

The proposer's DBE plan is a factor in selection of the contractor, and the contractor's adherence to its DBE plan will be monitored during the contract period. Contractors are required to submit periodic reports comparing actual with proposed payments to DBEs.

Research Using Human Subjects

If a proposal's research plan includes research with human subjects, proposers should outline a plan of how they will follow applicable federal and institutional regulations. Should a proposal be selected, the proposal's research plan will be subject to review by the National Academies' Institutional Review Board (IRB), also called the Committee to Review Studies Involving Human Subjects). For specific guidance on conducting research using human subjects, see the [IRB website](http://www.nas.edu/irb/).⁵

Deliverables

Every project includes at least one deliverable. The most common deliverables are the following:

- Interim reports (IRs),
- Draft final deliverables (DFDs), and
- Final deliverables (FDs)
 - Including the stand-alone technical memorandum titled "Implementation of Research Findings and Products as described on page three of this document.

An IR may be required from the contractor to provide TRB with information on a project's activities and findings at a designated point during the contract period. The IR may also include material to be reviewed by the project panel (e.g., a revised work plan to complete the remaining tasks). All deliverables, except the final deliverables, shall be submitted to the CRP Program Officer through CRPs project management website. The IR will be reviewed for acceptance under the same criteria as specified for FDs (described below). IRs are generally not intended for publication, but if the acceptance review or other factors determine that publication is warranted, the process is similar to that described for FDs.

⁵ <http://www.nas.edu/irb/>

Submittal of DFDs allows the panel to review the deliverables and provide feedback to the contractor. Once the deliverables have been revised, they are submitted as FDs. Depending on the research project, DFDs and FDs may have several components (e.g., a guidebook, primer, or other research product in addition to the contractor's final report).

The contractor will submit one (1) electronic PDF copy of each DFD not later than 90 days before the contract expiration date via CRPs project management website. The CRP Program Officer may choose to reduce the number of required paper copies. This draft is reviewed by the panel and staff, and review comments are transmitted to the PI approximately 45 days prior to the contract expiration date. The PI then prepares the FD that incorporates the panel's comments and reflects editing by a competent technical editor to ensure compliance with TRB's requirements for style and organization. These requirements are detailed in Chapter 5 of the [*Procedural Manual for Contractors*](#).⁶ Please note that these specifications differ from the Style Manual used by other divisions of TRB (e.g., for the TRB Annual Meeting or for publication in the *Transportation Research Record*.) Unless otherwise indicated in the *Special Notes* section of the RFP, assume that one (1) MS-Word electronic copy and twenty (20) paper copies of the final deliverable(s), prepared in accordance with TRB specifications, must be submitted to TRB by the contract expiration date. The electronic copy must be submitted on a labeled CD-ROM or DVD containing separate files for each chapter, table, figure, and appendix.

The PI must also submit the list of panel comments on the DFD and a point-by-point response of how each comment was addressed in the FD. If a revision was not made for any review comment, the response would state why a revision was not considered appropriate.

Proposing agencies should carefully consider the level of funds that will be required to ensure satisfactory compliance with contract commitments regarding preparation, editing, submission, and revision of IRs, DFDs, and FDs. Final acceptance of deliverables is based on the following criteria:

1. Fulfillment of objectives as set forth in the contract,
2. Adequacy of documentation, and
3. Clarity of presentation.

Based on the acceptance review, a decision is made concerning publication. Such publication is the responsibility of TRB.

Copyrights

All data, written materials, computer software, and other information prepared under the contract and the copyrights therein shall be owned by the National Academies of Sciences, Engineering and Medicine. The contractor and subcontractors will be able to publish this material for non-commercial purposes, for internal use, or to further academic research or studies. The contractor and subcontractors will not be allowed to sell the project material without prior approval by the National Academies of Sciences, Engineering and Medicine.

By signing a contract with the National Academy of Sciences, contractors accept legal responsibility for any copyright infringement that may exist in work done for TRB. Contractors are therefore responsible

⁶ <http://onlinepubs.trb.org/onlinepubs/crp/docs/CRPProceduralManual.pdf>

for obtaining all necessary permissions for use of copyrighted material in TRB's Cooperative Research Programs publications. For guidance on TRB's policies on using copyrighted material please consult Section 5.4, "Use of Copyrighted Material," in the *Procedural Manual for Contractors*.

Patents and Inventions

The disposition of patents and inventions is the responsibility of the contractor, and its obligations in this regard are set forth in the contract. Appropriate notice to the National Academies is required of inventions, discoveries, etc., and patent applications.

Insurance

Contractors shall be required to maintain either (1) insurance that provides for general liability, automobile usage, and workers' compensation and employer's liability as required by law; or (2) self-insurance that provides the equivalent coverage.

Disposition of Equipment

Subject to acceptance by the National Academies and the terms of the contract, contractors will have the opportunity to make recommendations for the retention or disposition of capital equipment acquired with project funds.

Data Rights

The National Academies shall have the right to duplicate, use, and disclose in any manner and for any purpose whatsoever all data generated under the contract, whether delivered to the National Academies or not, and to authorize others to do so.

Fulfillment of Contract

Fulfillment of the contract includes submission by the contractor of an acceptable final deliverable (FD). Other actions to be taken in closing out a contract involve audit of contract costs (including approval of final overhead rates if provisional), submission of a final voucher by the contractor, disposition of data and equipment, resolution of patent rights, completion of a certificate of performance and release form, and other related business matters.

V Instructions for Preparing and Submitting Proposals

General

Proposals are invited only in response to the issuance of RFPs by TRB. The Cooperative Research Programs are primarily **applied research** programs that do **not** operate on a grant basis and have no funds available to support unsolicited proposals, however meritorious they may be. The projects are structured to seek practical solutions for critical problems that exist nationwide; therefore, only those proposers already having extensive, demonstrated capability and experience in the subject problem area should submit proposals. Further, it is expected that this high level of capability will be applied in meeting the commitments of the proposal.

Deadlines

The deadline for *receiving* proposals is shown on the RFP for each project statement. Proposal deadlines are rigid, and extensions are not granted. **Without exception, all proposals arriving after the deadline shown on the RFP will be rejected.**

Signed copies of proposals are not required.

Transmittal

Proposals will be submitted electronically as PDF documents via a link provided in the Request for Proposals.

The full proposal (Items 1-12) must be in a single PDF file.

A letter of transmittal is not required with the proposal package. If a proposer elects to send a transmittal letter, it must not include information vital to the proposal.

Liability Statement

A Liability Statement is included in the RFP (see [Figure 1](#))⁷. **In order for the proposal to be accepted, the Liability Statement must be signed by an authorized official of the proposer, and shall not be altered in any way. It should then be scanned and save as a PDF file and included as Section 12 of the proposal. If a signed Liability Statement is not included in the proposal, or has been altered in any way, the proposal will be rejected.**

Acknowledgment

When you upload your proposal, you will be prompted for your email address to receive confirmation of receipt.

⁷ <http://onlinepubs.trb.org/onlinepubs/crp/docs/Liability.pdf>

Presentation

Maximum file size: 10 MB.

Maximum page count: 60 pages, unless otherwise specified in the RFP.

Proposals should be designed for maximum legibility if printed out for review. A minimum 12-point type should be used for text; minimum 10 point size for budgets and captions of tables and figures. All pages should be formatted to print on 8½" x 11" paper. If you use color, make sure it will be legible and correctly interpreted if printed in black and white.

All pages of the proposal shall be numbered sequentially.

Proposals must be self-contained and contain all the information outlined in these instructions. Any hyperlinks or URLs included in the proposal will not be considered in the selection process unless they are specifically requested in the RFP.

Organization of the Proposal

A proposal that does not comply with the instructions in this brochure will not be accepted. It is **mandatory** that the proposal contain the following information and that it be presented in the order shown below:

1. Cover
2. Summary Page
3. Table of Contents
4. Research Plan
5. Qualifications and Accomplishments of the Research Team Members
6. Conflict of Interest and Use of Proprietary Products
7. Equipment and Facilities
8. Time Requirements
9. Summary of Hours by Task
10. Itemized Budget
11. Diversity and Inclusion Plan
12. Cooperative Features (if appropriate)
13. Liability Statement

For the convenience of the reviewers, the first pages of items 4 through 12 should be bookmarked from the table of contents so that information may be located quickly.

Details of Essential Content

1. Cover

The cover (1st page of the proposal) shall contain the program name and project number (e.g., NCHRP 01-01), the title of the project, the name of the submitting proposer, and a "Limited Use Document" clause. For guidance, an example of the desired information and layout of the cover is shown in [Figure 2](#).

2. Summary Page

The summary page shall immediately follow the cover and shall include the information arranged as shown in [Figure 3](#)⁸. Note that the summary page shall contain the project number and title; the name, address, and telephone number of the proposer submitting; the name and address of any proposer with which a joint venture is proposed, if such is the case; the name and title of the person formally submitting the proposal; the name(s) and title(s) of the person(s) who actually wrote the proposal; the name(s), address(es), telephone number(s), and e-mail address(es) of the PI(s) assigned to the project; the name, address, telephone number, and e-mail address of the responsible administrative officer authorized to bind the proposer contractually for the project and to approve the expenditure of project funds; the amount of time proposed to complete the research; the total amount of the budget contained in the proposal; and the proposed contract type and amount of fixed fee, if any (refer to Section 10(k) of this document for fixed-fee limitations).

3. Table of Contents

Provide bookmarks from each item in the table of contents to the appropriate section of the proposal.

4. Research Plan

The research plan shall describe in detail how the research objective will be accomplished, including the submission of acceptable final deliverable. The plan ultimately becomes a part of the contract by reference of the proposal; therefore, it should describe in a specific and straightforward manner the proposed approach to the solution of the problem described in the project RFP. It should be concise yet include sufficient detail to describe completely the proposed approach to solving the problem. Research methodology shall be described in sufficient detail to permit evaluation of the probability of success in achieving the objectives. It is emphasized that no pre-proposal briefings or meetings with National Academies staff or panels are conducted during proposal evaluation and selection. The proposal, therefore, constitutes the one and only opportunity for the proposer to state its case. The research plan shall be subdivided into the following sections:

- a. *Introduction.* The introduction to the research plan should provide a concise overview of the proposer's approach to conducting the research. It should describe (1) the manner in which the expertise and experience of the proposed team will be used in the research, and (2) the availability and application of special data, facilities, contacts, or equipment needed. The introduction should highlight the linkages of the proposed team's capabilities to the project tasks and the manner by which the proposed plan will satisfy the objectives.
- b. *Research Approach.* This section should be used to describe how the objectives will be accomplished through a logical, innovative, and rational plan. The plan shall describe each phase or task of the proposed research in sufficient detail to allow an informed assessment of the likelihood of success.
- c. *Anticipated Research Results.* The research plan shall contain specific statements describing the anticipated research results and how their application could be promoted. Section 4(c) should include: a summary of the **anticipated product(s)** (e.g., mathematical models, design techniques, field or laboratory test procedures, or guidelines for recommended practice); a description of their **applicability to improving current practice**; and an **implementation plan**. Although the plan will likely evolve during the project, proposers should identify their initial thoughts on activities to promote product application, including: the audience or "market," a

⁸ http://onlinepubs.trb.org/onlinepubs/crp/docs/ProposalPrep_Fig3.docx

realistic assessment of impediments to successful implementation, future activities necessary for successful implementation, and criteria for judging the progress and consequences of implementation. If the nature of a project is such that it is known initially that the results will not be amenable to immediate implementation into practice, this section should include recommendations for the additional work necessary to reach the implementation stage.

5. Qualifications and accomplishments of the Research Team Members

Name, address, telephone number, and pertinent background information must be provided for the PI bearing primary responsibility for the project. The same information is required for other research team members participating to a significant degree. The proposal must describe how the academic, industrial, and/or research experiences of each research team member relates to the project to be undertaken. Short resumes, focused only on information relevant to the project, may be included in this section.

Proposals shall describe relevant past accomplishments of proposed research team members in the same or closely related problem area of the project to be undertaken. **Include accomplishments only if the proposed team members contributed in a significant way to the success of those efforts.** This description should include details concerning all known instances of application to practice of the proposer's research products. If no knowledge of such accomplishments exists, this should be stated.

6. Disclosure: Conflict of Interest and Use of Proprietary Products

- a. *Conflict of interest.* This section should present information relevant to possible sources of financial or organizational conflict of interest that could be perceived as jeopardizing an objective approach to the research effort, and proposers must disclose any such circumstances. If there are none, this should be stated. It is a conflict of interest for any organizations or individuals on a CRP research project team to conduct any research involving proprietary products (including manufactured goods, materials, models, software, or processes) in which they hold a financial interest. It would also be a conflict for an organization or individual on a CRP research project conduct any research involving their competitors' products, or products on which they had provided testimony as an expert witness. Proposals with a research plan that includes this type of conflict will be rejected. If a conflict of this type occurs during the conduct of research, the contract is subject to termination.
- b. *Use of proprietary materials.* CRP research projects may not evaluate, compare, or rank any proprietary products as part of the research that might provide those products with a competitive advantage or disadvantage. If proprietary products must be tested during the research, they will not be identified by name in any materials presented, published, or otherwise distributed. They must be described in generic terms according to their design and performance characteristics.

7. Equipment and Facilities

This section shall describe any equipment or facilities available to the proposer that are considered necessary to complete the research. The proposer should identify any arrangements that will be made to borrow or rent necessary equipment. Letters of commitment should be included to indicate the availability of equipment. Rental rates should be included in the budget. In the case where it is anticipated that project funds will be used to purchase additional equipment, list these expenses under "capital equipment."

8. Time Requirements

The time required to complete the research project shall be clearly stated in the proposal. Proposals will not be rejected if the proposed time does not match the time specified in the RFP; however, the proposer must justify any deviation from the RFP. In addition, a schedule shall be included that shows each phase or task of the work, when that phase or task will begin, how long it will continue, and when it should end. The timetable should clearly delineate the points in time at which Interim Deliverables and Final Deliverables (other than monthly and quarterly progress reports) are planned.

9. Summary of Hours by Task

A summary table shall be included listing **each key member of the research team, including consultants and contractors**, their role in the study, level of effort (expressed as the percent of their time on the project over the proposed project period), and their number of hours by task. The example detailed in [Figure 4](#)⁹ should be followed as closely as possible. Actual hours should be shown rather than months or dollars. In addition, it is preferred that only one table be submitted rather than separate tables by task.

10. Itemized Budget

The estimated cost for the project should be based on the proposed performance period. Specific forms—[Figure 5](#)¹⁰ (for the proposed prime contractor) and [Figure 6](#)¹¹ (one for each borrowed personnel, consultant, or subcontractor)—shall be used to reflect phase and/or task costs to the extent feasible.

Proposals will not be accepted where budgets are in excess of the amount shown in the RFP, and budgets that provide for cost sharing at a total cost over and above the total funds available are not encouraged.

Full justification must be provided if the prime contractor will conduct less than 50% of the work (budgeted costs).

All budget information should be suitable for printing on 8½" x 11" paper. If a budget page cannot fit on a single 8½" x 11" page, it should be split over multiple pages. It is recommended that proposers use the Excel templates provided at the links above.

The format in Figure 5 should be used to reflect the costs of the proposed prime contractor only and include the following:

- a. *Salaries and Wages.* Each principal employee of the proposed prime contractor to participate in the performance of the project shall be identified by name, with role, unloaded hourly rate, and cost presented in the format specified in the terms of Figure 5. It is recognized that the internal policies of some agencies prevent strict conformance with this requirement. If the proposer does not break out indirect costs, but instead uses commercial wage rates, those rates should be shown in the budget and supporting documentation for those rates should be provided. Acceptable documentation includes, but is not limited to: proposer's published rate scale; or a copy of a contract or invoices documenting that the proposed labor rates have been paid by a federal/state/local government entity or other large, well-known institution.
- b. *Borrowed Personnel.* Summarize the reimbursement to other employers for salaries and wages paid by them to their employees released for, and directly engaged in, the performance of the

⁹ http://onlinepubs.trb.org/onlinepubs/crp/docs/ProposalPrep_Fig4.xls

¹⁰ http://onlinepubs.trb.org/onlinepubs/crp/docs/ProposalPrep_Fig5.xls

¹¹ http://onlinepubs.trb.org/onlinepubs/crp/docs/ProposalPrep_Fig6.xls

subject research, plus federal and state payroll taxes and related employee benefit plan costs. Use Figure 6 to provide a detail breakout of these costs.

- c. *Consultants*. Summarize the costs for services of independent consultants deemed necessary for accomplishment of the research. Use Figure 6 to provide a detail breakout of these costs.
- d. *Subcontracts*. Summarize the costs for services of subcontractors deemed necessary for performance of a portion of the research. Use Figure 6 to provide a detail breakout of these costs.
- e. *Capital Equipment*. List items with a value in excess \$5,000 per unit required for the conduct of the research. Any unit costing more than \$5,000 is subject to approval in advance of purchase. Only equipment needed for the research project and to be used exclusively for the research project may be included; general use equipment shall not be approved.
- f. *Materials and Services*. Identify materials, supplies, and other articles, including the cost of processing; testing; rental of apparatus and equipment from others; preparing, editing, and reproducing deliverables, including the final deliverables for submission to TRB; and services not provided for in Items a, b, c, and d above. After the final deliverables have been received and accepted, their publication is the responsibility of TRB. Accordingly, the budget should provide only for preparing the number of copies as described in the RFP. If the RFP does not specify the number of copies, assume the number of copies specified in Section IV, "Research Administration," under the subsection entitled "Deliverables." Publication is the responsibility of TRB; publication costs should not be included in the proposer's cost estimate.
- g. *Communications and Shipping*. Include costs for telephone and Internet services, postage, freight, express, etc.
- h. *Travel*. Identify transportation costs plus the per diem allowance for lodging, meals, and incidental expenses established by the U.S. General Services Administration (GSA), for persons working directly on the subject research. Details per trip should include number of travelers, estimated transportation (airfare, train, etc.), and per diem. While all travel shall be conducted in accordance with the research proposer's stated travel policies, travel expenses shall not exceed the prevailing federal travel regulations for such travel. Most projects include at least one meeting between key members of the research team and the project panel and CRP Program Officer; the travel costs for the research team should be included. Approval of individual trips is not required except for costs of travel to scientific and technical meetings.
- i. *Employee Benefit Plan Costs and Payroll Taxes*. Include costs of insurance and employees' pension and retirement plans and federal and state payroll taxes for employees working directly on the subject re- search. The current costs and taxes should be extrapolated on the basis of previous years' trends to provide the best estimates possible over the entire contract period.
- j. *Overhead*. Include an allowance for overhead costs determined in accordance with the proposer's usual method of accounting and generally accepted accounting principles. The current overhead rate should be extrapolated on the basis of previous years' trends to provide the best estimate possible for the anticipated contract period. Specify the rate and the base on which the overhead is applicable and include a statement supporting this rate. A negotiation agreement or statement from a federal, state, or local government agency is acceptable for this purpose. A fixed overhead rate is preferred, and the proposer may be asked to agree to fixed indirect rates.

The funding allocated for the project does not allow for upward adjustment of indirect rates. If the proposer does not agree to fixed indirect rates, an upward adjustment will require a reallocation of the budget without an increase in funding.

- k. *Fixed Fee.* In the event the proposer desires to undertake work on this project on a cost-plus-fixed-fee (CPFF) basis, the budget shall include a line item showing the fixed-fee percentage and amount. **The fixed fee, which is subject to negotiation, cannot exceed seven (7) percent of contract costs exclusive of the fixed fees for the subcontractor, if any. The subcontractor's fixed fee is also limited to seven (7) percent.** The contractor is required to submit in the proposal a justification for the amount(s) included in the budget (e.g., a statement of the complexities of administration).

The costs for borrowed personnel, consultants, and subcontractors should be reflected using Figure 6. One table should be provided for each entity.

All fiscal, budget, and other pertinent information must be part of the full PDF proposal.

Cost analysis of proposals will be conducted by the project panel in coordination with the Office of Contracts and Grants to determine the reasonableness of the proposed itemized budget. A determination of the need for a pre-award audit for financial accountability purposes will be made on a case-by-case basis.

All proposed costs shall be in accordance with applicable government costs allowability requirements. Refer to OMB Circular A-21, "Cost Principles for Educational Institutions"; Circular A-87, "Cost Principles for State, Local and Indian Tribal Governments"; and Circular A-122, "Cost Principles for Non-profit Organizations." Institutions of higher education and other nonprofit recipients are required to meet all applicable audit requirements of OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

11. Diversity and Inclusion Plan

The Transportation Research Board recognizes that an inclusive and diverse organization is fundamental to fulfilling the National Academy of Sciences Congressional Charter and the TRB Vision and Mission. An inclusive and diverse environment enhances innovation and creativity in all areas of TRB and is important for cultivating an equitable and supportive atmosphere. Diversity may relate to gender, racial, and ethnic profiles as well as other socio-demographic aspects, such as geographic representation, education, management level, and length of professional career.

CRP further recognizes that our research contractors are likely to be most successful and produce results relevant to all potential users when they bring diverse perspectives and experiences to their teams and research plans. TRB also encourages participation by certified Disadvantaged Business Enterprises (DBEs), however, it does not have a minimum DBE requirement.

Item 11 of the proposal shall describe:

- a. Diversity among the research team members,
- b. How the proposed team will bring a diverse and inclusive approach to the research,

- c. Organizational policies or programs that the prime contractor or any subcontractors have in place to promote and enhance diversity and inclusion.
- d. Participation in the team by DBEs. Proposers must describe their plan for DBE participation in Item 11, including a copy of the certification of each DBE (if a DBE is certified in multiple jurisdictions, **provide documentation from only one jurisdiction**). Include the anticipated dollar amount and the percentage of DBE participation relative to the total project budget. Use [Figure 7](#) to break out the dollar amount for each DBE on the team. If a proposer's team does not include a DBE, a statement to that effect must be included in Item 11.

12. Cooperative Features

If assistance in the form of personnel, data, or equipment is required from other organizations, agencies, or individuals (whether public or private), describe the plans for obtaining such assistance. Such cooperative features could include paid subcontractors, unpaid volunteer participants, donations or loans of equipment or data, or agreements to provide access to roads or other facilities. A letter of intent from agencies or individuals agreeing to provide these cooperative arrangements should be included in the proposal.

Federal, state, transit agency, or airport employees included in proposals to conduct research must also include a letter signed by appropriate authority stating that the employee's agency is aware of the proposal and approves of the employee's participation in the proposed research.

13. Liability Statement

See information on Figure 1.

Final Notes

It is expected that proposers will have studied the foregoing instructions and will have complied fully with them. Failure to do so, if not warranting outright rejection, will certainly raise serious questions as to how well the proposer would handle a complex research project and would, therefore, seriously jeopardize the chances of being selected to conduct the work. In matters that require further clarification, proposers should contact the CRP Program Officer with technical questions regarding the RFP. The name and telephone number of the staff member assigned to each project are noted on the RFP.

Please remember that proposals must conform to the following or will be automatically rejected:

1. Proposals must be uploaded to the link provided in the RFP before the deadline shown on the RFP.
2. Proposals must contain, in the order indicated, the 12 items listed in Section V, "Instructions for Preparing and Submitting Proposals," under the subsection, "Organization," and which are described in the subsection, "Details of Essential Content."
3. Proposals must be accompanied by a signed, unmodified PDF copy of the Liability Statement. If this statement is not received by the proposal deadline, the proposal will be rejected.
4. Proposal budgets must not exceed the available funds stated in the RFP.

Nothing set forth herein shall waive any provision of the contract terms and conditions, which shall be controlling and take precedence with respect to any conflicting provision included in this document.

VI

Figures

Figure 1
Cooperative Research Programs
Liability Statement
Revised November 2017

Project _____

Fiscal Year _____

The signature of an authorized representative of the responding agency is required on the following unaltered statement in order for the TRB to accept the agency's response for consideration. **Responses submitted without this executed and unaltered statement by the response deadline will be summarily rejected.** An executed, unaltered statement indicates the agency's intent and ability to execute a subaward that includes the provisions below.

Proposer: _____

Name: _____ Title: _____

Signature: _____ Date: _____

SUBAWARDEE LIABILITY

- (a) The parties agree that the subawardee and its employees and agents ("Subawardee") will be primarily responsible for performing the work required under the subaward, and shall therefore be legally responsible for, and shall indemnify and hold the Academy harmless for all claims asserted against the Academy, its committee members, officers, employees, and agents, by any third parties, whether or not represented by a final judgment, if such claims arise out of or result from Subawardee's negligent or wrongful acts in performing such work, including all claims for bodily injury (including death), personal injury, property damage, and other losses, liabilities, costs, and expenses (including but not limited to attorneys' fees).
- (b) With respect to entities of State government that are subject to State law restrictions on their ability to indemnify and hold harmless third parties ("Restricted State Entities"), the obligation to indemnify and hold harmless the Academy in Paragraph (a) shall apply to the full extent permitted by applicable State law. In addition, each Restricted State Entity executing this subaward represents and warrants that no part of any research product or other material delivered by such Restricted State Entity to the Academy ("Work Product") shall include anything of an obscene, libelous, defamatory, disparaging, or injurious nature; that neither the Work Product nor the title to the Work Product will infringe upon any copyright, patent, property right, personal right, or other right; and that all statements in the Subawardee's proposal to the Academy and in the Work Product are true to the Subawardee's actual knowledge and belief, or based upon reasonable research for accuracy.
- (c) The term "wrongful act" as used herein shall include any tortious act or omission, willful misconduct, failure to comply with Federal or state governmental requirements, copyright or patent infringement, libel, slander or other defamatory or disparaging statement in any written deliverable required under the subaward, or any false or negligent statement or omission made by Subawardee in its proposal to the Academy.
- (d) The obligations in paragraph (a) of this clause to indemnify and hold harmless the Academy shall not extend to claims, damages, losses, liabilities, costs, and expenses to the extent they arise out of the negligent or wrongful acts or omissions of the Academy, its committee members, officers, employees, and agents.
- (e) Both the Academy and Subawardee shall give prompt notice to each other upon learning of the assertion of any claim, or the commencement of any action or proceeding, in respect of which a claim under this paragraph may be sought, specifying, if known, the facts pertaining thereto and an estimate of the amount of the liability arising therefrom, but no failure to give such notice shall relieve the Academy or Subawardee of any liability hereunder except to the extent actual prejudice is suffered thereby.
- (f) The Academy and Subawardee agree to cooperate with each other in the defense of any claim, action, or legal proceeding arising out of or resulting from Subawardee's performance of the work required under this subaward, but each party shall control its own defense. The Academy shall also have the option in its sole discretion to permit Subawardee or its insurance carrier to assume the defense of any such claims against the Academy.
- (g) The obligations under this clause survive the termination, expiration, or completion of performance under this subaward.

Figure 2
Example Cover Page

copy **4**

NCHRP¹

Project Number

(Insert appropriate project number,
e.g., 02-04, 05-07A, 10-12(02).)

Project Title

(as shown on RFP)

TRANSPORTATION RESEARCH BOARD
NAS-NRC
LIMITED USE DOCUMENT

This proposal is for use of recipient in selection of a researcher to conduct work under the National Cooperative Highway Research Program.² If the proposal is unsuccessful, it is to be returned to the NCHRP.¹ Proposals are regarded as fully privileged, and dissemination of the information included therein must be approved by the NCHRP.¹

Proposer Name

¹ The appropriate program acronym should be used (i.e., NCHRP, TCRP, ACRP, or BTSCR).

² The appropriate program title should be used.

Figure 3
Example Summary Page

SUMMARY PAGE

NCHRP¹ Project (Use number on project statement RFP)

“(Title as shown on project statement RFP)”

Proposer: (Name that will appear on contract; include address and phone number)

Person Submitting Proposal: (Name and title)

Proposal Written by: (Name and title)

Proposal Date: _____

Principal Investigator: (Name and title, address, telephone number, and e-mail address)

Administrative Officer: (Name and title, address, telephone number, and e-mail address)

Proposed Contract Period: (In months)

Total Contract Amount: \$ _____

Proposed Contract Type: (Cost-reimbursement, cost-plus-fixed-fee, or fixed-price)

Fixed-Fee Portion at __%: \$ _____ (Only if proposing a cost-plus-fixed-fee contract)

¹ Use the appropriate program acronym (i.e., NCHRP, TCRP, ACRP, or BTSCR).

Figure 4

Effort By Tasks (Hours and Costs) XCRP Project No. XX-XX

| | | | Hours | | | | | | | |
|---|------------------------|----------------------------------|------------|------------|-------------|------------|------------|-------------|------------------|----------------------|
| Names of Principal Staff Members | Role in Study | Time (%) Over Contract Period ** | Task 1 | Task 2 | Task 3 | Task 4 | Task 5 | Total | Hourly Rate (\$) | Cost |
| PRIME (Company Name) | | | | | | | | | | |
| J. Smith | Proj Principal | 3.1% | 8 | 16 | 16 | 8 | 16 | 64 | \$ 85.00 | \$ 5,440.00 |
| S. Jones | Principal Investigator | 33.2% | 24 | 120 | 240 | 150 | 160 | 694 | \$ 70.00 | \$ 48,580.00 |
| E. Gonzalez | Jr. Planner | 36.7% | 24 | 160 | 300 | 122 | 160 | 766 | \$ 60.00 | \$ 45,960.00 |
| R. Kim | Admin | 6.5% | 16 | 24 | 16 | 40 | 40 | 136 | \$ 35.00 | \$ 4,760.00 |
| Subtotal | | | 72 | 320 | 572 | 320 | 376 | 1660 | | |
| | | | | | | | | | | \$ - |
| BORROWED PERSONNEL 1 (Company Name) | | | | | | | | | | \$ - |
| M Martinez | Researcher | 4.0% | 8 | 20 | 20 | 20 | 16 | 84 | \$ 40.00 | \$ 3,360.00 |
| K. Bala | Researcher | 34.5% | 40 | 120 | 200 | 200 | 160 | 720 | \$ 40.00 | \$ 28,800.00 |
| T. Richards | Jr. Planner | 19.3% | 12 | 60 | 150 | 100 | 80 | 402 | \$ 60.00 | \$ 24,120.00 |
| P. Lee | Admin | 3.1% | 8 | 8 | 8 | 20 | 20 | 64 | \$ 35.00 | \$ 2,240.00 |
| Subtotal | | | 68 | 208 | 378 | 340 | 276 | 1270 | | \$ - |
| | | | | | | | | | | \$ - |
| SUBCONTRACTOR 1 (Company Name) | | | | | | | | | | \$ - |
| M. Huange | Legal Advisor | 1.9% | 4 | 10 | 10 | 8 | 8 | 40 | \$125.00 | \$ 5,000.00 |
| H McDonnell | Engineer | 16.3% | 20 | 60 | 100 | 80 | 80 | 340 | \$ 75.00 | |
| A. Robinson | Transp. Planner | 9.9% | 6 | 30 | 80 | 50 | 40 | 206 | \$ 70.00 | \$ 14,420.00 |
| G. Thomas | Admin | 1.4% | 4 | 4 | 4 | 10 | 8 | 30 | \$ 35.00 | \$ 1,050.00 |
| Subtotal | | 29.5% | 34 | 104 | 194 | 148 | 136 | 616 | | \$ - |
| | | | | | | | | | | \$ - |
| SUBCONTRACTOR 2 (Company Name) | | | | | | | | | | \$ - |
| R Colon | Research Specialist | 8.0% | 16 | 40 | 40 | 40 | 32 | 168 | \$ 45.00 | \$ 7,560.00 |
| Subtotal | | | 16 | 40 | 40 | 40 | 32 | 168 | | \$ - |
| | | | | | | | | | | \$ - |
| GRAND TOTAL PROJECT | | | 190 | 672 | 1184 | 848 | 820 | 3714 | | \$ 191,290.00 |
| Notes: | | | | | | | | | | Contract months |
| * Include Subcontractors and Consultants | | | | | | | | | | 12 |
| ** Total hours divided by 174 hours/month divided by contract months. | | | | | | | | | | |

Figure 5

Prime Contract Budget Detail XCRP Project No. XX-XX*

| | | | Task 1 | | Task 2 | | Task 3 | | Task 4 | | Task 5 | | Total | |
|--|---------------|--------------------|--------|-------|--------|------|--------|------|--------|------|--------|------|-------|------|
| (a) Salaries and Wages (Prime) | | | | | | | | | | | | | | |
| Name | Role in Study | Direct Hourly Rate | Hours | Cost | Hours | Cost | Hours | Cost | Hours | Cost | Hours | Cost | Hours | Cost |
| | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| (b) Borrowed Personnel (2) | | | | | | | | | | | | | | |
| Entity Name 1 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Entity Name 2 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| (c) Consultants (2) | | | | | | | | | | | | | | |
| Entity Name 1 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Entity Name 2 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| (d) Subcontracts (2) | | | | | | | | | | | | | | |
| Entity Name 1 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Entity Name 2 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| (e) Capital Equipment (Prime) | | | | | | | | | | | | | | |
| Item 1 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Item 2 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| (f) Materials and Services (Prime) | | | | | | | | | | | | | | |
| Item 1 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Item 2 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Item 3 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| (g) Communications and Shipping (Prime) | | | | | | | | | | | | | | |
| Item 1 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Item 2 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Item 3 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| (h) Travel (Prime) | | | | | | | | | | | | | | |
| Trip 1 Description | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Trip 2 Description | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Trip 3 Description | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| (i) Employee Benefit Plan & Payroll Taxes (Prime) | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| (j) Overhead (Prime) | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| (k) Fixed Fee (Prime)(3) | | | Rate: | 7.00% | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| GRAND TOTAL PROJECT | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Notes: (1) Total hours divided by 174 hours/month divided by contract months. (2) Use Figure x to provide detail for borrowed personnel, consultants, and subcontractors. (3) Maximum fee of 7%, exclusive of fixed fees for subcontractors. | | | | | | | | | | | | | | |

*Use this form for prime contract only.

Figure 6

Borrowed Personnel, Consultant, and Subcontract Budget Detail XCRP Project No. XX-XX*

Entity Name: _____

| Salaries and Wages | | | Task 1 | | Task 2 | | Task 3 | | Task 4 | | Task 5 | |
|---|---------------|----------------------|--------|------|--------|------|--------|------|--------|------|--------|------|
| Name | Role in Study | Loaded Hourly Rate** | Hours | Cost | Hours | Cost | Hours | Cost | Hours | Cost | Hours | Cost |
| | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Capital Equipment | | | | | | | | | | | | |
| Item 1 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Item 2 | | | | | | | | | | | | |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Materials and Services | | | | | | | | | | | | |
| Item 1 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Item 2 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Item 3 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Communications and Shipping | | | | | | | | | | | | |
| Item 1 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Item 2 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Item 3 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Travel | | | | | | | | | | | | |
| Trip 1 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Trip 2 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Trip 3 | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| Subtotal | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| TOTAL (Salaries & Wages plus Expenses) | | | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |

*Use this form for borrowed personnel, consultants, and subcontractors, one form per entity.

**Including direct costs, indirect costs, and fixed fee (up to 7%).

Figure 7

Diversity and Inclusion Participation Plan

Proposer _____

Date _____

Program and Project Number _____

| Company Name | Relationship to Prime (Check One) | | DBE Certifying Body | Budgeted Amount (\$) |
|--------------|-----------------------------------|---------------|---------------------|----------------------|
| | Prime | Subcontractor | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Instructions: In the table above, list each DBE on your team, its relationship to the lead proposer, the DBE certifying body, and the dollar amount budgeted.

Please attach DBE certification.

Abbreviations

| | |
|-------|--|
| ACRP | Airport Cooperative Research Program |
| BTSCR | Behavioral Traffic Safety Cooperative Research Program |
| CPFF | Cost-Plus-Fixed-Fee |
| DBE | Disadvantaged Business Enterprise |
| DFD | Draft final deliverable |
| FD | Final deliverable |
| GSA | General Services Administration |
| IR | Interim report |
| IRB | Internal Review Board (aka the Committee to Review Studies Involving Human Subjects) |
| NCHRP | National Cooperative Highway Research Program |
| OMB | Office of Management and Budget |
| PI | principal investigator |
| QPR | Quarterly progress reports |
| RFP | Request for Proposal |
| TCRP | Transit Cooperative Research Program |
| TRB | Transportation Research Board |