



**Your Safety • Your Mobility
Your Economic Opportunity**

Idaho Transportation Department Research Program Manual

**Division of Highways Construction and Operations
Contracting Services Section**

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Acronyms

AASHTO	American Association of State Highway and Transportation Officials
AASHTO RAC	AASHTO Research Advisory Committee
CFR	Code of Federal Regulations
FHWA	Federal Highway Administration
FFY	Federal Fiscal Year – October 1 through September 30
FMIS	Fiscal Management Information System
ITD	Idaho Transportation Department
NCHRP	National Cooperative Highway Research Program (Administered by TRB)
OTIS	ITD Office of Transportation Investment System
RAC	ITD Research Advisory Council
RD&T	Research, Development & Technology Transfer
RiP	Research-in-Progress database (Administered by TRB)
R&I	AASHTO Special Committee on Research and Innovation
SFY	State Fiscal Year – July 1 through June 30
SPR	State Planning & Research
Stacks	Idaho Commission for Libraries Digital Repository
State DOT	State Department of Transportation
STIP	Statewide Transportation Improvement Program
TAC	Technical Advisory Committee
TPF	Transportation Pooled-Fund
TRB	Transportation Research Board
TRID	Transportation Research International Database (Administered by TRB)
USC	United States Code
US DOT	United States Department of Transportation

Chapter 1

Program Overview

Purpose

This manual outlines the Idaho Transportation Department's (ITD) procedures for administration of the Research Program, which is responsible for overseeing all research, development, and technology transfer activities funded with State Planning and Research (SPR) Part B funds.

Statutory Requirements

Federal statutes require that states set aside 2 percent of the apportionments they receive from five core Federal-aid programs to be used for State Planning and Research (SPR) activities (23 USC 505). These programs include:

- The National Highway Performance Program (NHPP)
- The Surface Transportation Program (STP)
- The Highway Safety Improvement Program (HSIP)
- The Congestion Mitigation Air Quality Improvement Program (CMAQ) Program
- The National Highway Freight Program

Of the funds that are set aside, a minimum of 25 percent must be used for research purposes, unless the State certifies that more than 75 percent of the funds are needed for statewide and metropolitan planning and the Secretary accepts such certification.

SPR funds are to be used to establish a cooperative, continuous, and comprehensive framework for making transportation investment decisions and to carryout transportation research activities throughout the State. More specifically, federal statutes identify the following eligible uses of SPR funds:

- Engineering and economic surveys and investigations
- Planning of future highway programs and local public transportation systems and planning of the financing of such programs and systems, including metropolitan and statewide planning
- Development and implementation of management systems, plans and processes under the NHPP, HSIP, CMAQ, and the National Freight Policy
- Studies of the economy, safety, and convenience of surface transportation systems and the desirable regulation and equitable taxation of such systems
- Research, development, and technology transfer (RD&T) activities necessary in connection with the planning, design, construction, management, and maintenance of highway, public transportation, and intermodal transportation systems
- Study, research, and training on the engineering standards and construction materials for transportation systems described in the previous bullet, including the evaluation and accreditation of inspection and testing and the regulation and taxation of their use

- Conduct of activities relating to the planning of real-time monitoring elements
- Implementation by the Secretary of the findings and results of the Future Strategic Highway Research Program

CFR Title 23, Chapter I, Subchapter E, Part 420 includes the federal regulations regarding Planning and Research Program Administration. Sections 420.105(a) and (b) articulate FHWA's policy regarding the use of the planning and research funds. The policy is to provide maximum possible flexibility in the use of funds to meet highway and public transportation planning and RD&T needs provided that planning activities of national significance identified the code sections below are adequately met:

- Paragraph B of 420.105 (providing data to support FHWA's responsibilities to Congress and the public such as data evaluating the extent, performance, condition, and use of the Nation's transportation systems)
- 23 USC 134 (Metropolitan Transportation Planning)
- 23 USC 135 (Statewide and Nonmetropolitan Transportation Planning)
- 23 USC 303 (Management Systems) and
- 23 USC 505 (State Planning and Research).

Program Funding

ITD's Research Program is largely supported with State Planning and Research (SPR) funds. In some instances, state funds or other federal funds may also be used to support research activities overseen by the Research Program.

Federal statutes establish an 80/20 match rate for SPR funds unless the Secretary of US DOT determines that the interests of the Federal-aid highway program would be best served by decreasing or eliminating the non-Federal share. US DOT/FHWA generally waives the state match requirement for NCHRP and pooled fund payments, which are discussed in greater detail elsewhere in this manual.

Program Organization

Staffing

The ITD Research Program is administered by the Research Program Manager under the supervision of the Contracting Services Engineer and the Division of Highways Construction and Operations and Division of Highways Development Administrators. Staff support for the Research Program also includes a Technical Writer/Librarian, who assists with distribution of research information and maintenance of the program website.

Research Advisory Council

ITD has established a Research Advisory Council (RAC) to help guide the Research Program. The RAC is broad-based group that includes high-level leaders from throughout the organization including:

- Deputy Director
- Chief Administrative Officer or their designee

- Chief Human Resources Officer or their designee
- Division of Highways Construction and Operations Administrator
- Division of Highways Development Administrator (Chief Engineer)
- A District Engineer
- Division of Motor Vehicles Division Administrator or their designee
- Contracting Services Engineer
- Research Program Manager
- FHWA Idaho Division Office Research Contact

The RAC reviews all requests submitted by ITD management and staff for research and pooled fund projects funded through the Research Program and sets project funding priorities.

Chapter 2

Research Project Selection Process

Annual Request for Research Project Needs

Each year, the Research Program Manager issues a call for research project needs in January. The request for project ideas is sent to:

- All ITD managers and supervisors in the headquarters office and each of the districts
- ITD staff who have previously requested research projects
- FHWA Idaho Division Office staff
- The Local Highways Technical Assistance Council (LHTAC) Administrator

Requests for research projects and pooled funds studies are to be made using the Project Request Form (**Appendix 1**). Submissions must include:

- A discussion of the problem the research would address
- A description of the research objectives, tasks, deliverables, and implementation requirements
- A discussion of anticipated benefits of the research and how the project would contribute to accomplishment of ITD's strategic goals or support ITD's key management principals
- An estimate of the project cost and duration

Each research request must be signed by a project sponsor at the section or unit manager level or above. By signing the form, the project champion is 1) indicating that the research is needed and 2) committing to facilitate implementation of research recommendations at the completion of the research project. The project requests must also identify the proposed project manager. Project ideas are also accepted from FHWA Idaho Division Office staff and LHTAC.

Research requests cannot be submitted directly by university researchers. Research and contracting staff at partner universities (Boise State University, Idaho State University, the University of Idaho, and other regional universities) are notified of the process and encouraged to assist staff in developing project proposals. The research request may identify a specific researcher who is recommended for the project, but there is no assurance that a researcher assisting with the development of a proposal will be selected if the project is chosen for funding.

Project Request Forms are typically due in early March. This extended period is designed to provide requestors with sufficient time for needed background research and proposal development. Research program staff can assist in conducting an initial literature review and with proposal development. A reminder is typically sent out 1 to 2 weeks prior to the submittal deadline.

Review and Prioritization of Research Requests

All requests to use SPR Part 2 funding for research projects and pooled funds studies are reviewed by ITD's Research Advisory Council (RAC). Project and pooled fund requests are distributed to RAC

members for initial review within one to two weeks of the annual submission deadline. RAC members are asked to consider the following questions when reviewing project proposals:

1. Does the proposed project address goals identified in ITD's strategic plan (i.e. safety, mobility, economic opportunity)?
2. Does the project address ITD vision elements (continuous improvement, transparency/accountability, efficiency, extraordinary customer service, effective partnerships, teamwork, employee development)?
3. Does the proposal address one of ITD's key initiatives (e.g., "Towards Zero Death")?
4. Will the project provide a usable end product?
5. Can the results of the project be implemented?

Each proposal is then to be rated on a 5 point scale ranging from 5 – critical to ITD and/or its partners – to 1 – no value to ITD and/or its partners.

Research Program staff compile the RAC members' initial ratings of the proposals. Based on this feedback received, proposals that are low rated or not adequately developed may be eliminated from further consideration by the Research Program Manager.

The highest rated proposals are then discussed at the annual RAC meeting, which is typically held in late March or early April. Project champions are asked to make a short presentation at the meeting about need for, and potential benefits of, their project proposal or pooled fund request, and to answer questions from RAC members. Following these presentations, RAC members discuss the proposals and then provide their final recommended prioritization of the proposals for funding.

Following the RAC meeting, Research Program staff use RAC member rankings to determine the overall funding priorities for the coming federal fiscal year. Projects with the highest combined ranking are selected for funding.

Process for Considering Research and Pooled Fund Requests at Other Times of the Year

While most research project requests are handled through the annual process described above, requests for research and pooled fund projects may also be submitted at other times of the year. In these cases, if sufficient funding is available for the proposed project, the requestor is asked to complete a Project Request Form.

The completed Project Request Form(s) are then distributed via e-mail by Research Program staff to RAC members for review. RAC members are encouraged to have an e-mail discussion about proposals. Following any discussion, RAC members are asked to submit their votes indicating their support or opposition for the proposed projects. Projects receiving support from a majority of RAC members are then added to the Work Program and submitted to FHWA for approval.

Chapter 3

SPR Work Program Development and Modification

Section 420.105(c) of the federal regulations assigns FHWA responsibility and authority for determining the eligibility of activities the State DOTs and their subrecipients propose to support with State Planning and Research (SPR) funds. Section 420.111 requires states to develop work programs that includes:

- A description of the work to be accomplished
- The estimated cost of each activity
- A breakdown by fund type (federal share by fund type, state matching rate, other state or local funds)

State DOTs must obtain approval and authorization to proceed from FHWA prior to beginning work on activities supported with SPR funds.

Annual Process for Identifying and Prioritizing SPR Funding Needs

ITD's Research Program Manager, who has been designated as the SPR Program Coordinator, oversees the development of the Annual SPR Work Program. The work program development process begins in March each year. The Research Program Manager distributes a request to all managers of sections and units supported (at least in part) with SPR funds to identify their funding needs for the coming federal fiscal year. Managers are asked to identify:

- The staff positions that perform SPR eligible work and the percentage of work time they devote to these activities.
- A breakdown of estimated routine operating costs for their unit(s) for the coming fiscal year
- A prioritized list of proposed projects to be funded with SPR Planning funds.

The SPR Program Coordinator reviews the information and follows up as needed to gain an understanding of budget needs and priorities. The SPR Program Coordinator also works with staff in the Financial Planning and Analysis Unit to estimate SPR funding levels for the coming year. The information is then compiled and presented to the Division of Highways Construction and Operations and Division of Highways Development Administrators, who is responsible for making the final funding allocation decisions.

Development of the Draft SPR Work Program

The SPR Program Coordinator distributes information on management-approved program priorities and funding allocations to SPR unit managers. Unit managers and their staff are responsible for drafting their sections of the annual work program. Each section of the work program must include:

- A description of the tasks and subtasks to be performed including discussion of objectives, methodologies, and products.

- Information about the estimated cost for each task and subtask, including a breakdown of personnel (salary and benefits) and operating (supplies, materials, services) costs and a breakdown by fund type (federal, state, other).

Drafts of the various sections of the work program are then submitted to the SPR Program Coordinator, who reviews the submissions and conducts follow-up as needed. The various sections are then combined and the work program is submitted to ITD's Division of Highways Development Administrator (Chief Engineer) for review and approval.

Submission of the SPR Work Program for FHWA Review and Approval

The work program as approved by ITD management is then forwarded to FHWA's Idaho Division Office for review and approval. ITD has set a target of submitting the work program to FHWA by July 1 each year, three months before the start of the federal fiscal year. This is done to allow sufficient time for FHWA review and any needed follow-up. It also allows ITD to begin preparing for upcoming work once the work program is approved.

If FHWA does not approve the work program as submitted, the SPR Program Coordinator and SPR unit managers are responsible for conducting needed follow-up, discussing the issues raised by FHWA with ITD leadership, and making needed changes to the work program. The revised work program is then resubmitted to FHWA.

When FHWA approves the work program, the SPR Program Coordinator is responsible for ensuring that copies are distributed to the Division of Highways Construction and Operations and Division of Highways Development Administrators, Highways Business Operations Manager, all SPR unit managers, to administrative support staff for these units, and to staff in ITD's Budget Office and Financial Services Section. Copies of the work program are also posted in the Research folders in ProjectWise, on the department's intranet, and in the Research Program Overview section of the Research Program website at: <http://itd.idaho.gov/alt-programs/?target=research-program>.

Work Program Amendments

The work program is intended to be a living document and must be revised as needed to reflect changes in planned work tasks and the allocation of funds. Boxes following each section of the work program are to be used to note proposed changes. Each time a section of the work program is modified SPR unit managers are to provide a summary of the changes and the date the work program was amended.

The SPR Program Coordinator is responsible for scheduling periodic meetings throughout the year to discuss the work program. These meetings generally include the SPR Program Coordinator, the Highways Business Operations Manager, and all SPR section and unit managers. Staff from the ITD Budget Office may also be included in these meetings if needed. The purpose of these meeting is to discuss new work tasks/priorities and needed funding allocation changes.

The SPR Program Coordinator is responsible for overseeing revisions to the work program. Work program amendments must be reviewed and approved by the Division of Highways Development Administrator (Chief Engineer) and are submitted to FHWA's Idaho Division Office for review and approval. The SPR Program Coordinator prepares a transmittal letter summarizing proposed changes to the work program and includes this with the revised work program.

Approved amendments to the work program are distributed to the Division of Highways Construction and Operations and Division of Highways Development Administrators, Highways Business Operations Manager, all SPR unit managers, to administrative supports staff for these units, and to staff in ITD's Budget Office and Financial Services Section. Copies of all approved amendments to the Work Program are posted on the department's intranet and the full program, as amended, is posted on the Research Program website and in ProjectWise.

Chapter 4

Obligation and Transfer of SPR Funds

Obligation of Funds

ITD's Office of Financial Planning and Analysis (FP&A) is responsible for development and management of the Statewide Transportation Improvement Program (STIP), a multi-year plan that matches proposed projects to available funding. As part of this process, FP&A staff estimates annual federal SPR funding and allocates the available funding, with the required 20 percent state match, to SPR projects.

In the STIP, SPR Planning and Research funds are handled as "grouped projects," with 75 percent of the funding allocated to the annual Statewide Planning project and 25 percent allocated to Statewide Research. The 75/25 split reflects the federal requirement that specifies a minimum of 25 percent of federal SPR funds be devoted to Research, Development and Technology Transfer (RD&T) activities. If department leadership chooses to devote more than the minimum 25 percent to RD&T in a particular year, and FHWA approves the allocation of funding as reflected in the annual SPR work program, the SPR Program Coordinator is responsible for submitting a Change Request, referred to as a "1414," to FP&A staff, who will adjust the allocations to the Statewide Planning and Statewide Research projects in the STIP.

FP&A staff assigns the annual Statewide Planning and Statewide Research projects "Key #s," which are unique project identification numbers used for financial management and tracking purposes, and enters the project into the department's OTIS system. OTIS is an ITD web application that was developed to track obligation and use of federal funds and associated match.

Following federal appropriation of funds, FHWA notifies ITD FP&A staff when funds are available to obligate. FP&A staff will then direct the SPR Program Coordinator to initiate the obligation of SPR funds using the OTIS system. In some instances, Congress may appropriate full funding for a federal fiscal year prior to the start of the fiscal year. However, more frequently federal funds are appropriated through a number of Continuing Resolutions at several points throughout the year. In these cases, available funds are generally obligated in proportion to the overall allocation of funding between planning and research activities.

For SPR Planning funds, funds are obligated by ITD section using the general Statewide Planning Key # and specific program codes for each of the major sections receiving SPR Planning funds including:

- Planning Services (Program FXX901A, with XX representing the year)
- Geographic Information Systems (GIS) (FXX901G)
- Highway Data (FXX901I)
- Freight (FXX901J)
- Financial Planning & Analysis (FXX901K)

Phase codes and Activity codes are established to allocate funds and track expenditures for planning and research items outlined in the work program. The SPR Program Coordinator provides information regarding the amounts budgeted for planning items to staff in the Cost Accounting Unit of ITD's Financial Services Section. Cost Accounting staff then enter the budgeted amounts into the department's Advantage financial management system for use in tracking costs and obtaining federal reimbursement for SPR-eligible activities.

Research funds are obligated to a separate Key # and program (FXX901R), and obligations are further broken down by "Phase Code" in OTIS as follows:

- RE – American Association of State Highway and Transportation Officials (AASHTO) Technical Service Program payments
- RG – Program administration
- RL – Research projects

Obligation requests, referred to as "2101s," for the Statewide Planning and Statewide Research grouped projects are certified by the SPR Program Coordinator and submitted to the ITD Program Management Office for review and approval. The requests are then forwarded to FP&A, which reviews and approves the obligation request and submits them to FHWA for approval.

Pooled Fund Transfers

The term "pooled funds" refers to research-related projects where multiple states and, in some cases FHWA, pool resources to meet a common need. FHWA encourages states to collaborate on shared research needs, and has created a website to serve as a platform for these collaborative efforts: <https://www.pooledfund.org/>. The Transportation Pooled Fund (TPF) Program website can be used by state DOTs and FHWA to post solicitations for proposed pooled fund projects, to commit funds to projects, and to share information about active and completed pooled fund projects. Detailed guidance on the TPF Program and program procedures are available at: [https://www.pooledfund.org/Reports/Pooled_Fund_Program_Procedures_Manual_\(Revised_2017\).pdf](https://www.pooledfund.org/Reports/Pooled_Fund_Program_Procedures_Manual_(Revised_2017).pdf).

When solicitations for pooled fund projects are posted, Research Program staff send information about the proposed projects to appropriate ITD managers and staff. If department staff have an interest in participating in a proposed project, they must complete an ITD Research Request Form and submit the completed form to the Research Program Manager. Pooled fund requests are handled in the same manner a research project requests (See the section on the Research Project Selection Process).

Committing Funds to Pooled Fund Projects

The Research Program Manager is designated as ITD's Funding Contact for the TPF Program. When pooled fund requests are selected for funding and approved by FHWA's Idaho Division Office for inclusion in the department's SPR Work Program, the Research Program Manager commits funds to projects on the TPF website. When committing funds, the Research Program Manager specifies the amount of funding being committed to a specific project by year and identifies the source of the funds if other than SPR funds.

Transferring Funds Committed to Pooled Fund Projects

Funding for ITD participation in multi-state pooled fund projects and for the department's annual contribution to the National Cooperative Highway Research Program (NCHRP) is generally included in the Statewide Research portion of the SPR Work Program. Each pooled fund project and the department's annual NCHRP contribution are set up as separate projects in the STIP and each is assigned its own Key #. When the decision is made to participate in a new pooled fund project, the Research Program Manager is responsible for submitting a Change Request to FP&A staff to add the project to the STIP and the OTIS system. Funding is then scheduled for these projects by FP&A staff by shifting funds from the amounts scheduled for the Statewide Research grouped projects in each of the commitment years.

Pooled fund and NCHRP obligation/transfer requests are prepared and certified by the Research Program Manager and submitted to FP&A, along with:

- **Lead State Acceptance Letter**, which identifies the state DOT that will lead the pooled fund project and acknowledging their readiness to accept participating states' contributions to the project.
- **FHWA Waiver Approval Letter**, which provides FHWA's determination that the project meets the criteria for use of SPR funds and qualifies for use of 100 percent federal SPR funds with no required state matching funds.

FP&A staff prepare transfer requests using FHWA Form 1575 for projects led by another state and FHWA form 1576 for projects led by FHWA. These forms are available at:

<https://www.pooledfund.org/Home/Forms>. After completing the transfer paperwork, FP&A staff advance the transfer request to the ITD Program Management Office for review and approval. The transfer request is then submitted to the FHWA Idaho Division Office, along with the supporting documents discussed above.

The Financial Section of the FHWA Division Office ensures the transfer request conforms to ITD's approved SPR Work Program and that the committed funds are available. They then sign the request and forward the transfer form and supporting documents to the FHWA Office of the Chief Financial Officer, which processes the transfer of funds to the lead agency.

ITD Staff Involvement in Pooled Fund Projects

When committing funds to pooled fund projects, the Research Program Manager designates the ITD Technical Contact for the project. The Technical Contact is the manager or staff person identified as the ITD Project Manager in the Research Request Form. The Technical Contact is ITD's primary contact for the project and generally serves on the project Technical Advisory Committee, providing input on needed research, monitoring the progress of the research, and offering feedback on research deliverables. The Technical Contact also plays a key role in ensuring implementation of the research results at ITD.

Chapter 5

Research Project Management and Reporting

Posting Information about Programmed and Active Research Projects

Once the annual work program is approved, Research Program staff adds programmed research projects to the Transportation Research Board's (TRB) Research in Progress (RiP) database, which can be found on the web at: <https://rip.trb.org/>. RiP is a national resource that was created to catalog transportation-related research that has been programmed, is in progress, or has recently been completed. The bulk of the records in RiP are research projects funded by US DOT and State DOTs, including research done through pooled fund efforts and by federally-funded University Transportation Centers (UTCs). RiP is a tool that states can use to identify research that is underway to help minimize duplication of effort.

Information must be entered into RiP by authorized users. After logging into the system, Research Program staff enter the start date, estimated completion date, the funding amount, contact information for the ITD Project Manager and the principal investigators (researchers), an abstract summarizing the research to be performed, and a listing of the research subject areas and key index or search terms that would help system users find the research. When the record is created, Research Program staff designate the project as "programmed." Once the research is initiated, Research Program staff update the record to show the project as "active."

When ITD research projects are initiated, Research Program staff also post information about the projects in the "Active Research Projects" section of the department's Research Program website at: <http://itd.idaho.gov/alt-programs/?target=research-program>. Information posted includes the project #, a project description, a summary of the project objectives, the estimated completion date and project budget, and contact information for the researchers and ITD staff overseeing the project. This information is to remain on the website until the project is completed and the final report has been posted on the website.

Contracting for Research Services

ITD has established master agreements with the state's three major public universities: Boise State University, Idaho State University, and the University of Idaho. The master agreements spell out general requirements for collaborative research efforts including:

- Project communications
- Quality assurance including peer review and editing of reports
- Allowable costs
- Invoicing procedures
- Handling of disputes
- Publication of research information

- Intellectual property
- Title VI reporting

The Research Program Manager is responsible for renegotiating the agreements periodically. Before the agreements are finalized they must be reviewed by Attorney General staff supporting the department. The agreements are signed ITD's Division of Highways Development Administrator (Chief Engineer) and by Director of the university's Office of Sponsored Programs or their designee.

Agreements for Individual research projects with Idaho universities are then developed using ITD Form 1013, Research Program Project Task Order Form (**Appendix 2**). The task order form is used to detail the specific objectives, task, deliverables, schedule, and budget for a project. The form also identifies the researchers that will perform the work, the ITD Project Manager, and the individuals who will serve on the project technical advisory committee. The ITD Project Sponsor and Project Manager, and the university principal investigator, are expected to sign the task order form to acknowledge their support for and commitment to completing the work. The task order must be signed by ITD's Division of Highways Development Administrator (Chief Engineer) and the university's Director of the Office of Sponsored Program or their designee to be fully executed.

Memoranda of agreements (MOAs) with other public universities must contain provisions similar to the master agreements with Idaho universities. In addition, the university is required to prepare a proposal containing the same types of information that is included in the ITD 1013 form that is incorporated into the MOA by reference. MOAs must be reviewed by Attorney General staff supporting the department before being finalized. The ITD Project Sponsor and Project Manager, and the university principal investigator, are expected to sign the MOA to acknowledge their support for and commitment to completing the work. The MOA must be signed by ITD's Division of Highways Development (Chief Engineer) and the university's Director of the Office of Sponsored Program or their designee to be fully executed.

While most of the research funded through ITD's Research Program is conducted by public universities in Idaho and neighboring states, projects can also be done with private firms. In these instances, selection of the research firms and contracting for research services is done through ITD's Business and Support Management (BSM) Section or the Consultant Administration Unit (CAU) in the Contracting Services Section.

Prior to establishing task orders or MOAs for research projects with public universities or public agencies, the Research Program Manager will follow the Suspension and Debarment Checking Process described in Appendix 3. For contracts with private firms for research services, documentation verifying compliance with the suspension and debarment requirements will be obtained by the Research Program Manager the appropriate ITD contracting entity (either BSM or the CAU). Documentation of contractor compliance with suspension and debarment requirements will be included in the "Contract Documents" folder for the research project in ProjectWise.

Research Project Management

Individual research projects are overseen by department managers and staff from the sections requesting the project. The Project Sponsor, the ITD manager who submitted the research request, can serve as Project Manager or can designate one of their staff to serve as Project Manager. In addition, a Technical Advisory Committee (TAC) is designated for each project. The TAC is comprised of ITD subject matter experts and individuals who will likely be end users of the research. In addition, the TAC always includes a representative from the Federal Highway Administration's Idaho Division Office. The TAC may also include individuals from outside the department, including representatives from partner agencies, industry associations, etc.

Project management duties include:

- Development of the project scope of work
- Monitoring the progress of the research tasks
- Coordination of data/information gathering and field testing for projects
- Review of project deliverables
- Maintaining project records
- Reviewing project-related invoices and monitoring the project budget
- Coordinating implementation of research results

More detailed information about the roles and responsibilities of Project Sponsors, Project Managers, and TAC members is presented in the ITD Research Project Management Guide, which is included as **Appendix 4**.

Research Report Requirements

The final research reports for ITD research projects generally are to be prepared using the standard ITD Research Report Template and *ITD Research Program Report Process and Style Guide* available in the Resources for Researchers section of the program website at: <http://itd.idaho.gov/alt-programs/?target=research-program>. The template and style guide present the standard formatting for key elements of ITD research reports including:

- The cover page
- Table of Contents, List of Tables, and List of Figures
- Chapter and section headings
- Tables and figures
- Citations and references
- Headers and footers

If the ITD Project Sponsor and Project Manager determine that a report format other than the standard format would better meet the needs of the project, the final report can be formatted in a fashion that best meets the need. This is typically done when the final deliverable is a guide book or a document that is intended for a broad audience such as the general public.

All final ITD research reports must include the following standard disclaimer statement:

Standard Disclaimer

This document is disseminated under the sponsorship of the Idaho Transportation Department and the United States Department of Transportation in the interest of information exchange. The State of Idaho and the United States Government assume no liability of its contents or use thereof.

The contents of this report reflect the view of the authors, who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official policies of the Idaho Transportation Department or the United States Department of Transportation.

The State of Idaho and the United States Government do not endorse products or manufacturers. Trademarks or manufacturers' names appear herein only because they are considered essential to the object of this document.

This report does not constitute a standard, specification or regulation.

In addition, all final research reports must include FHWA's Technical Report Documentation Page, Form F 1700.7 (**Appendix 5**). The form includes key information including the:

- Report and project numbers
- Report title
- Performing organization and authors
- The sponsoring organization
- The type of report and period covered
- The publication date
- An abstract
- Key search terms for the study
- A link to the ITD Research Program's website where an electronic copy report can be found

Projects funded with SPR funds should include the "SPR" in parentheses following the department name in Box 12 to specify that the research was supported with SPR funds.

ITD's Master Agreements with Idaho universities, Memoranda of Agreement (MOAs) with other public universities, and contracts with private firms typically specify that a peer reviewer approved by the ITD Project Manager review the draft report before it is submitted to ITD for review. A copy of the peer reviewer's comments and a summary of changes made in response to the peer reviewer's comments are to be submitted with the draft report.

Researchers are also asked to have the draft final report reviewed by an editor prior to submitting the draft to ITD for review. The purpose of this review is to ensure that the draft complies with ITD formatting requirements and is readable for a broad audience that can include policy makers, agency management, and the general public.

Research Report Distribution

A limited number of printed copies of final research reports is produced for each project. The Project Manager is responsible for determining the number of copies needed for Technical Advisory Committee members, the research team, department staff and other report users, and notifying the Research Program Manager. Research Program staff then coordinate printing of the report, which is typically done by staff in the ITD Print Shop. A hardcopy of each final report is retained by the Research Program.

A pdf of the final report is posted on the Research Program webpage on the ITD website. In addition, a copy of the final report is also posted in ProjectWise, which is the repository for project files and other key program information including the annual SPR work program, project management resources, and final research reports. Copies of final reports can be found on ProjectWise at:

pw:\\itdhq1app57.itd.state.id.us:PWITD\Documents\Headquarters\Research\Final Reports\.

The Research Program staff is responsible for posting copies of final research reports on the Idaho Commission for Libraries' Stacks system, Idaho's Digital Repository at:

<https://libraries.idaho.gov/stacks/submit-stacks/>. Stacks is a searchable centralized online collection of digital publications that are created by state agencies for the purpose of public information. It was created by state statute 33-2505. The website has instructions for submitting reports.

In addition, FHWA directs that digital copies of final reports be distributed to:

- FHWA Research Librarian – fhwalibrary@dot.gov
- FHWA Office of Corporate Research, Technology, and Innovation Management – john.moulden@dot.gov
- National Transportation Library (NTL) – NTLDigitalSubmissions@dot.gov
- National Technical Information Service – input@ntis.gov
- TRB Transportation Research International Documentation (TRID) database – <http://trid.orb.org/submit.aspx>
- Volpe National Transportation Systems Center – susan.dresley@dot.com
- Northwestern University Transportation Library – r-sarmiento@northwestern.edu
- University of California TRI-NET Repository, Institute of Transportation Studies Library – revans@library.berkeley.edu

Project Closeout

Payment of Final Project Invoices

ITD's Master Agreements with Idaho universities and MOAs with other universities generally specify that payment of the final 10 percent of the contract amount will be withheld until ITD acceptance of the final project deliverables. The Project Manager is responsible for maintaining an Invoice and Encumbrance Tracking spreadsheet in the project files in ProjectWise. When payments for work on a project have reached 90 percent, remaining invoices are to be held until the final report and any other project

deliverables have been received and accepted. Once all deliverables have been accepted, the Project Manager is to submit the remaining invoice(s) for payment.

Final invoices for ITD research projects are to be clearly marked as “FINAL” by the university or research firm to indicate that no other payment claims will be submitted for work on the project. In addition, the Project Manager is to mark the “Final Payment” box on the second page of the ITD 0771 form (**Appendix 6**) that accompanies the final invoice, certifying that all work covered by the agreement has been satisfactorily completed.

Project Encumbrance Closeout

After the final invoice for a project has been approved for payment, the Research Program Manager is responsible for submitting a request to the ITD Financial Technicians at HQHWYAP@itd.idaho.gov that the encumbrance for the project be closed and any remaining funds be released.

Records Retention

Per the approved retention plan for ITD’s Contracting Services Section, research project files are to be retained for a period of three years following payment of the final invoice. The ITD Project Manager for the research project is responsible for ensuring the files are complete and named consistently at the conclusion of the project. Research Program staff then move the project folder to the “Completed Projects” folder and are responsible for deleting the project files at the end of the retention period.

Final ITD research reports are to be kept permanently. At least one hardcopy of each report will be retained by Research Program staff. In addition, a digital copy of each final report will be posted in the final reports folder in ProjectWise at:

pw:\\itdhq1app57.itd.state.id.us:PWITD\Documents\Headquarters\Research\Final Reports\.

Copies of ITD’s *SPR Annual Work Program and Cost Estimate* will be retained for a period of four years following the completion of the federal fiscal year.

Chapter 6

Program Accountability

Annual Reporting of Program Efforts and Accomplishments

Annual SPR Accomplishments Report

ITD prepares an annual SPR Accomplishments Report summarizing activities supported with SPR funds during the prior federal fiscal year. The report provides information on the status of work tasks and projects at the end of the fiscal year and projects completed along with their impacts/benefits.

The SPR Program Coordinator distributes a template for SPR managers to use when preparing the report at the beginning of October each year. The template is organized similar to the work program and identifies key activities, deliverables, and projects.

SPR managers are to complete their section of the Accomplishments Report and submit to the SPR Program Coordinator by the end of November. The SPR Program Coordinator then compiles the report and follows up with SPR managers as needed.

The report is distributed to ITD management and the key Planning and Research contacts in the FHWA Division Office in January. The report is also distributed to all SPR unit managers and posted in the SPR Work Program folder in ProjectWise and on the Research Program's SharePoint page.

Annual Report on the Research Program to the Idaho Transportation Board

The Research Program Manager makes an annual presentation to the Idaho Transportation Board in November each year. The Idaho Transportation Board includes seven members appointed by the Governor (six members selected from each of ITD's six districts and a board chair).

The presentation provide an overview of the program, active projects, completed projects and implementation efforts, and new projects that will be initiated in the coming year. The presentations typically involve selected project sponsors or project managers, who are provided the opportunity present information about their research projects and how the projects will benefit the department.

Title VI Reporting

ITD's Master Agreements with Idaho Universities and contracts with other universities and private firms require that these organizations comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252) and 49 CFR Part 21, which prohibit discrimination on the basis of race, color, national origin.

Each year, ITD Research Program staff request information from universities and private firms regarding the gender, race, and country of origin for all staff and students who worked on ITD research projects in the past state fiscal year. In addition, ITD's research partners are asked to provide information about

Title VI-related complaints received during the reporting period and actions taken to address these complaints and to prevent future discrimination.

At the request of ITD's Office of Civil Rights, Research Program staff complete a Title VI Questionnaire each year providing information that is incorporated into the Department's annual Title VI Report to FHWA. The questionnaire includes information regarding:

- Research projects initiated during the past state fiscal year.
- An estimate of the federal SPR funds expended during the fiscal year on contract work.
- A breakdown of the number and percentage of faculty and students engaged in ITD research projects by gender, race, and country of origin.
- A summary of Title VI complaints received by ITD's research partners and actions taken in response to these complaints.
- A summary of actions to provide equal opportunity for female and minority consulting firms to compete for and participate in research agreements.
- Information regarding Title VI training completed by Research program staff during the reporting period.

Peer Exchanges

Federal regulation 23 CFR 420.209 (a)(7) requires that agencies periodically conduct research-related peer exchanges. Peer exchanges are periodic reviews of a State DOT's RD&T program or portion thereof, by representatives of other State DOTs, for the purpose of exchange of information or best practices. These peer exchanges provide an opportunity to review and improve the management processes for the Research Program in the host state and in other participating states.

FHWA has developed guidance to assist states in planning and conducting research peer exchanges. A copy of this guidance is available on the FHWA website at:

<https://www.fhwa.dot.gov/publications/research/spr/10048/10048.pdf>. FHWA gives states flexibility in the format for peer exchanges. The most common format is an onsite peer exchange hosted by one state, although multi-state and virtual peer exchanges are also allowed.

ITD will conduct a research peer exchange at least once every five years. The Research Program Manager will work collaboratively with the key research contact in the FHWA Division Office to plan the peer exchange. This includes:

- Determining the format for the peer exchange
- Setting the objectives and focus areas for the peer exchange
- Selecting the peer exchange participants

The peer exchange panels will include ITD Research Program staff, staff from the Research Programs in other selected state DOTs, and a representative from the FHWA Idaho Division Office. Program customers and stakeholders, such as ITD staff serving as project sponsors and project managers,

university partners, and others with technical expertise in the areas being addressed by the peer exchange.

ITD's Research Program is responsible for travel and other costs associated with hosting peer exchanges. FHWA's authorizes states to use 100 percent SPR funding for this costs. The Research Program Manager is responsible for budgeting funds needed to cover peer exchange costs.

The results of the peer exchange will be shared with department management at a close out meeting. The meeting will include discussion of participating programs strengths and weaknesses, and actions participants intend to take to strengthen their respective programs.

A written peer exchange report will be prepared for each exchange hosted by ITD. Research Program staff will distribute digital copies of the peer exchange report to all peer exchange participants and to the FHWA's Office of Corporate Research, Technology, and Innovation Management. The report will also be posted on the AASHTO Special Committee on Research and Innovation's webpage for peer exchanges at: <https://research.transportation.org/peer-exchange-program/>.

Chapter 7

National and Regional Collaboration

Collaboration is key element of ITD's Research Program. Program staff interact regularly with their research counterparts at other State DOTs, with staff with national organizations with transportation responsibilities, and with transportation research programs at universities. This chapter focuses on these relationships and the roles and responsibilities of ITD Research Program staff in these areas.

American Association for State Highway and Transportation Officials (AASHTO)

AASHTO is a national nonprofit, nonpartisan association representing the state DOTs. AASHTO has an extensive committee structure including policy forums, modal councils, technical committees and task forces comprised of staff from member departments who serve voluntarily. These groups set policy goals and develop a wide range of voluntary recommended infrastructure construction, management, and operations standards and guidelines that affect projects, programs and people in every state. The organization also offers a variety of training and services to meet member agency needs.

AASHTO Research Advisory Committee (RAC)

ITD's Research Program Manager is designated as the department's official representative on the AASHTO Research Advisory Committee (RAC), which is comprised of research program staff from member departments.

The AASHTO RAC meets twice annually, in January at the TRB Annual Meeting and a summer meeting in July that rotates between sites in AASHTO's four regions. ITD's Research Program Manager generally attends these meetings to represent ITD's interests, share program management best practices, and obtain information about transportation research efforts nationally.

The AASHTO RAC has a number of task forces that have been set up to address key areas of interest to RAC members. In addition, regional RAC groups have been established to encourage communication and coordination between states. These task forces and regional groups meet at the RAC Summer Meeting and through periodic teleconferences or webinars. To the extent possible, ITD's Research program Manager will fully participate in these activities.

AASHTO Technical Service Programs

AASHTO has developed a variety of Technical Service Programs (TSPs) aimed at meeting specific needs of state DOTs. For example, the National Transportation Product Evaluation Program (NTPEP) conducts testing of products used in highway construction projects. Information from this testing is used by state DOTs in determining products that are acceptable.

Participation in these programs is voluntary, and states choosing to participate in a particular program are ask to pay an annual fee to support program activities. FHWA has determined that many of these programs qualify for SPR RD&T funding. ITD's Research Program provides ITD's annual contribution to a

number of the program. Department managers can request that the Research Program provide support for specific programs, and ITD's Division of Highways Construction and Operations and Division of Highways Development Administrators are responsible for approving requests. Programs selected for funding through ITD's Research Program are listed in the department's annual SPR Work Program.

As with pooled fund projects, a key technical contact is identified for each Technical Service Program supported with SPR funding. This individual is responsible for monitoring program efforts and providing information regarding planned activities and the benefits ITD receives from its participation in the program. Program efforts and accomplishments are included in ITD's annual SPR Accomplishments Report. Information provided by the ITD program contacts is used to determine if SPR funds should be used to continue supporting these programs.

AASHTO Publications Management

AASHTO produces a wide range of publications that are used by member departments. These include standard specifications for design and construction of bridges, pavements, materials testing, and geometric design; and guidance regarding roadway maintenance and snow and ice control. AASHTO provides member organizations, like ITD, complimentary access to its publications. Some publications are free to access. In other instances, a limited number of users (typically 5) are authorized to access the document at no cost and fees are assessed for additional users.

Each member department has been asked to designate a "gate keeper" and back-up to manage complimentary publication licenses. At ITD, Research Program staff have this responsibility. The department has established a dedicated e-mail account (aashtopubs@itd.idaho.gov) to receive notices about new and updated publications. When a new publication is released Program staff are responsible for "purchasing" the publication for no cost using the department's designated account. This will ensure that the publication is available for ongoing use by department staff. Research Program staff also are responsible for providing department staff information about how to access these documents once they have been "purchased."

RAC Listserv

The AASHTO RAC has established a listserv to encourage information sharing among research staff at the state DOTs (AASHTO_RAC@LSW.NAS.EDU). The listserv is frequently used by member departments, FHWA, and TRB to distribute survey requests. Research Program staff is responsible for distributing these requests to appropriate ITD staff and encouraging them to respond.

ITD's Research Program staff occasionally distributes surveys through the RAC listserv for ITD staff and researchers performing work for the department. In these instances, Research Program staff encourages the survey developer to provide a summary of the survey results that can be posted on the AASHTO RAC website for use by other states.

The listserv is also sometimes used to notify states of new research reports that have been published. Research staff will distribute information to ITD staff as appropriate. Information about research

completed by other state DOTs, FHWA, and TRB can also be received via other e-mail accounts. ITD's Research Program distributes this information to department staff as time permits.

Transportation Research Board (TRB)

TRB is a division of the National Academies of Sciences, Engineering, and Medicine, a private, non-profit institution established to provide nonpartisan, objective guidance for decision makers on pressing issues. TRB's Technical Activities Division staffs hundreds for transportation-related committees comprised of volunteers. The committees propose research, share research findings, sponsors special activities, and provide a forum for transportation professionals to discuss critical transportation issues. TRB's Cooperative Research Programs Division manages a number of national transportation research programs, including the National Cooperative Highways Research Program (NCHRP). The organization also oversees key information systems with information on transportation research including RiP and TRID.

TRB Core Services Support

ITD has made a commitment to provide ongoing support for TRB core activities. Funding contributed by states helps cover costs for TRB committee support, conference planning, preparation and distribution of TRB publications, and maintenance of the TRB website and online databases like RiP and TRID. Agencies supporting TRB core services are considered "TRB Sponsors" and receive a number of benefits including free access to TRB reports and journals, complimentary registration to webinars hosted by TRB, and discounted fees for participation in TRB conferences and meetings. The Research Program budgets money annually for ITD's TRB Core Services contribution and includes this in the annual SPR Work Program. As with pooled fund contributions, a separate project with its own unique Key # is set up in the STIP and in OTIS and funds are transferred through the pooled fund process. TRB Core Services transfers are initiated by Research Program staff and routed through ITD's Financial Planning and Analysis Unit and the Program Management Office.

TRB State Representative

ITD's Research Program Manager is designated as the TRB State Representative for Idaho and is the key link between TRB and the department. The TRB State Representative is responsible for distributing information about TRB reports and events, and coordinating planning for TRB state visits.

The TRB State Representatives for all sponsoring departments meet during the TRB Annual Meeting and at the AASHTO RAC Summer Meeting. TRB covers the travel costs for the TRB State Representative to attend either the TRB Annual Meeting or the AASHTO RC Summer Meeting.

TRB Annual Meeting

TRB holds its annual meeting in Washington, DC in January each year. It is a large event with more than 10,000 participants and 100s of committee meetings and sessions. ITD's Research Program Manager attends the meeting in the role of TRB State Representative.

The TRB Annual Meeting provides information on research conducted in a wide range of areas, and ITD often sends several staff to participate in the event. The Research Program Manager helps coordinate planning for ITD's involvement in the meeting by communicating with staff who will attend and ensuring that key meetings and sessions are covered to meet department needs.

TRB State Visits

TRB sends staff to visit each state every 1-2 years. The purpose of these visits is to share information about TRB services and activities with ITD staff and others and to learn about transportation-related issues in the states that would benefit from TRB research.

ITD has generally elected to have annual visits, and typically requests that a staff person from TRB's Technical Activities Division and a staff person from one of the Cooperative Research Programs participate in the visit. The Research Program Manager meets with department management to identify the desired focus area and timing for the visit, and completes an annual TRB survey to communicate the ITD's preferences.

The visits generally are scheduled for 1-2 days and focus on an area of high importance to ITD, such as strategic focus areas like highway safety and freight movement or current emphasis areas like asset management. The goal is to bring together TRB and ITD experts in a particular area to share information that will benefit all participants. Visits also generally provide an opportunity for ITD Executive Leadership to meet with the TRB visitors, and may include a generally session open to all staff to learn more about TRB resources and services and to find out how they can become involved in TRB activities.

Distribution of Information on TRB Publications and Webinars

TRB distributes information about recently completed research reports, upcoming webinars, and planned conferences and meetings via e-mail and its weekly newsletters. Research Program staff regularly distributes information to ITD managers and staff that relates to their areas of responsibility, with the goal of ensuring that staff are aware of information and resources that could benefit the department.

National Cooperative Highways Research Program (NCHRP)

NCHRP is a cooperative research effort of the state DOTs. The program was established in 1962 through a voluntary agreement of the state DOTs to conduct research of common interest. The program is funded largely through annual contributions from state DOTs. Ideas for projects funded through NCHRP, called problem statements, generally must be submitted by state DOTs or AASHTO committees. Problem statements are distributed to the state DOTs for review and rating and decisions regarding project funding are made by AASHTO's Special Committee for Research and Innovation (R&I).

NCHRP Program Funding

As noted above, NCHRP is largely funded by the state DOTs. Each state agrees to contribute 5.5 percent of the federal SPR funds it receives annually to support the program. Similar to pooled fund projects, FHWA has determined that contributions to NCHRP can be made using 100 percent federal SPR funds.

ITD's Research Program includes funding for the program each year in the SPR Work Program. As with pooled fund projects, ITD's contribution to the program is set up as a project in the STIP and OTIS and funds are transferred through the pooled fund process. Pooled fund transfers are initiated by Research program staff and routed through ITD's Financial Planning and Analysis Unit and the Program Management Office.

Development of NCHRP Problem Statements

In July each year, AASHTO's R&I Committee invites the submission of research problem statements. Problem statements are due November 1st and are to be developed using a standard form that includes:

- Background information
- A Literature review summary
- A description of the research objective
- Information regarding needed implementation support activities
- An estimate of the required funding and project duration
- A summary of the potential benefits of the proposed research

Research Program staff can assist ITD managers and staff in preparing NCHRP problem statements by performing literature searches and helping with preparation and/or review of problem statements.

Coordination of ITD Review and Rating of NCHRP Problem Statements

In January each year, TRB distributes the problem statements to state DOTs for Review and Rating. The Research Program Manager reviews the problem statements and identifies potential reviewers including ITD headquarters managers and subject matters, ITD district staff, and staff from partner agencies like the Local Highways Technical Assistance Council (LHTAC) and the Ada County Highway District (ACHD).

Problem statements are distributed along with a rating form, and reviewers are asked rate the problem statements on of scale of 0 to 5, with 0 indicating "No Need/Benefit to ITD or Idaho " and 5 indicating "Absolute Need/Benefit to ITD or Idaho". When evaluating the proposals, please keep in mind the following questions:

- Does the proposed study address a current problem that needs researching?
- Is the proposed study appropriate for NCHRP or should it be performed elsewhere?
- Is the problem of nationwide interest?
- Are similar efforts already underway elsewhere? If so, will this unnecessarily duplicate the efforts of others?
- What is the probability of this research being successful?
- Will the products of the research be implementable by state DOTs?
- If the research is successful, what is the anticipated return with respect to its cost?

Reviewers are also asked to provide comments describing why highly rated projects are needed and how ITD and other agencies would benefit if the research were performed.

The Research Program Manager compiles the ratings received and follows up when ratings differs substantially among reviewers. The Research Program Manager then prepares a draft ballot and reviews it with agency Management. The Research Program Manager then submits the department's final ballot through AASHTO's Electronic Balloting System.

Coordination of ITD Nominations for NCHRP Project Panels

Projects funded through NCHRP are overseen by panels comprised of state DOT subject matter experts and representative of partner organizations (local agencies, university r. In April or May each year, TRB sends out an announcement seeking panel nominations for projects that were selected for funding by AASHTO's R&I Committee.

As part of the problem statement review process, ITD's Research Program Manager asks reviewers to indicate if they would be interested in serving on the project panel or nominating one of their staff if they rate a project highly (generally a 4 or 5). This information is compared to the slate of selected projects and a list of potential nominees compiled. The Research Program Manager then meets with agency leadership review panel nominees.

The Research Program Manager then contacts selected nominees and asks them to submit the required nominations materials using TRB's Online Panel Nomination Form.

Regional Partnerships

ITD's Research Program relies on partnerships with universities in Idaho and the region. As mentioned previously, ITD has developed master agreements with each of the state's three major public research universities. In addition, ITD has contracted with a number of other universities in the region to meet its research needs.

The Research Program Manager and ITD representatives have served on the advisory board for the National Institute for Advanced Transportation Technology (NIATT), the state's only university research center focused solely on transportation-related issues, for many years. In addition, the Research Program Manager has been involved in regional transportation research collaboration for a number of years. This includes involvement in an informal consortium of the state DOT research managers and university transportation center managers from the Region X states, and serving on the Advisory Board for PacTrans, the USDOT-funded regional university transportation center for the Pacific Northwest. The purpose of ITD's involvement in these efforts is to keep abreast of transportation-related research that could benefit the department and to communicate information about ITD's research and workforce development needs.

Appendix 1

Research Project Request Form

ITD RESEARCH PROGRAM PROJECT REQUEST FORM

1. TITLE:

2. SUBJECT AREA:

(e.g., Pavements, Bridges, Environment, Maintenance, Safety, Planning, Management, etc.)

3. PROBLEM STATEMENT:

What problem would be addressed by this project?

How is ITD impacted by the problem?

4. RESEARCH PROPOSED:

What are the objectives of the proposed project?

Is the proposed work an extension of past research efforts?

What tasks do you envision?

What deliverables/outputs will be produced?

How will the research results be implemented?

5. ANTICIPATED BENEFITS/OUTCOMES:

How will the information and deliverables generated from the project be used to solve the problem?

How will the proposed research further the accomplishment of ITD's long-range goals and or support the department's key management principles?

What practical benefits will result from the work proposed (cost savings, process efficiencies, accidents reduced, lives saved, etc. – please be specific)?

6. RESEARCHER/CONSULTANT RECOMMENDATIONS:

Can the project be bid competitively?

Is the project appropriate for university researchers or is a private firm needed?

If you have a particular researcher/consultant in mind for the project, who do you recommend and why do you feel they are most appropriate for this work?

7. ESTIMATE RESEARCH PERIOD AND FUNDING NEEDED:

Estimated Length of Project: _____ months

Estimated Cost for the Project: \$ _____

Does your cost estimate include funds to cover ITD project-related costs, such as the need to budget research funds for flagging costs/traffic control?

If so, how much should be budgeted for these costs? \$_____.

PROJECT SPONSOR:

(Each project request must be signed by a project sponsor –section manager or above – who will champion the project through implementation. The sponsor will designate a project manager to provide day-to-day technical oversight of the project, approve the final scope of work, review all project deliverables, and takes the lead in facilitating implementation of recommendations when the research is completed.)

Name: _____ **Title:** _____

Signature: _____

PROPOSED ITD PROJECT MANAGER:

(The project manager will be responsible for ITD's technical oversight of the project. The project manager chairs the technical advisory committee (TAC), schedules periodic meetings between the researchers and the TAC, reviews and approves project-related invoices, coordinates technical review of all deliverables by the TAC, and coordinates implementation planning efforts.)

Name: _____ **Title:** _____
E-mail: _____ **Phone #:** _____

ITD STAFF DEVELOPING THIS REQUEST:

Name: _____ **Title:** _____
E-mail: _____ **Phone #:** _____

Submit completed forms to:

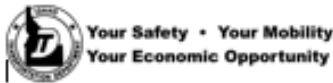
Ned Parrish, Research Program Manager

Ned.Parrish@itd.idaho.gov

208-334-8296

Appendix 2

ITD Form 1013, Task Order Form



Cooperative Transportation Research Program Project Task Order

 ITD 1013 (Rev. 02-18)
 itd.idaho.gov

 Task Order Number:

This task order is made and entered into this day of , 20 , by and between the State of Idaho, acting by and through the Idaho Transportation Board and the Idaho Transportation Department, whose address is 3311 West State Street, Boise, Idaho 83703, hereinafter called ITD and , whose address is , hereafter called .

The task order describes research to be conducted by for ITD. Any deviation from the work outlined in the task order must first be approved in writing by ITD. In addition, work performed under this task order is subject to the provisions of the Cooperative Transportation Research Program Master Agreement as amended. The master agreement and this task order constitute the entire agreement. No oral understanding or agreement shall be binding on any of the parties hereto.

Project Title 		Project ID Numbers ITD 	
Start Date (mm-dd-yy) 	Duration (number of months) 	Completion Date (mm-dd-yy) 	
Project Budget – ITD Share 	University Cost Share (if any) 	Total Project Budget \$ 	

Contacts

ITD Project Manager's Name Address <table style="width: 100%;"> <tr> <td style="width: 50%;">Phone Number </td> <td style="width: 50%;">E-mail Address </td> </tr> </table>	Phone Number 	E-mail Address 	Principal Investigator Name(s) Address <table style="width: 100%;"> <tr> <td style="width: 50%;">Phone Number </td> <td style="width: 50%;">E-mail Address </td> </tr> </table>	Phone Number 	E-mail Address
Phone Number 	E-mail Address 				
Phone Number 	E-mail Address 				
FHWA Project Advisor's Name Address <table style="width: 100%;"> <tr> <td style="width: 50%;">Phone Number </td> <td style="width: 50%;">E-mail Address </td> </tr> </table>	Phone Number 	E-mail Address 	Co-Principal Investigator Name(s) (if applicable) Address <table style="width: 100%;"> <tr> <td style="width: 50%;">Phone Number </td> <td style="width: 50%;">E-mail Address </td> </tr> </table>	Phone Number 	E-mail Address
Phone Number 	E-mail Address 				
Phone Number 	E-mail Address 				
Peer Reviewers Name Address <table style="width: 100%;"> <tr> <td style="width: 50%;">Phone Number </td> <td style="width: 50%;">E-mail Address </td> </tr> </table>	Phone Number 	E-mail Address 	Report Editor's Name Address <table style="width: 100%;"> <tr> <td style="width: 50%;">Phone Number </td> <td style="width: 50%;">E-mail Address </td> </tr> </table>	Phone Number 	E-mail Address
Phone Number 	E-mail Address 				
Phone Number 	E-mail Address 				

Note: Submit invoices, Professional Agreement Invoice and Progress Reports (ITD Form 0771), and supporting expenditure detail to the **ITD Project Manager** listed above by email monthly in accordance with the Master Agreement. Invoices shall state the task(s) under which the total invoiced costs were accrued.

Technical Advisory Committee Members

Name	Phone Number	E-mail Address








**Description of Work****Research Problem Statement**
**Objectives**
**Project Tasks**
**Project Communication Schedule**
**Needs and Requirements**
**Required Outputs/Deliverables**
**Implementation**
**Expected Outcomes/Savings to ITD**


Exhibit 3 – Task Completion Deadlines

Task completion dates shall include schedules for all tasks and submission dates for all deliverables specified above. Dates should be included for submission of report outline and report drafts. See steps listed below.

[illegible]

Report preparation and review steps:

- Submit report outline to ITD for review
- Meet with ITD Project Manager and Research Program Manager to discuss report outline and content
- Send draft to peer reviewer and make necessary changes
- Send draft to report editor and make necessary changes
- Submit draft final report to ITD/FHWA for review
- ITD/FHWA review of draft completed (allow 30 days for ITD review)
- Revise report as needed in response to ITD review comments (allow 30 days)
- Submit final draft to ITD (allow 30 days for final review and revision of the report)

Exhibit 4 – Project Time Schedule

Please attach Gantt chart with a graphic depiction of the project schedule.



•

Exhibit 5 – Project Budget

Please attach a budget detailing costs by task/deliverable.



Project Authorization**Authorizing Signatures**

ITD Representative's Name (Printed)	Title	
ITD Representative's Signature	Date	

University Representative's Name (Printed)	Title	
University Representative's Signature	Date	

Acknowledged and Understood

ITD Project Sponsor's Name (Printed)	Title	
ITD Project Sponsor's Signature	Date	

ITD Project Manager's Name (Printed)	Title	
ITD Project Manager's Signature	Date	

University Principal Investigator's Name (Printed)	Title	
University Principal Investigator's Signature	Date	

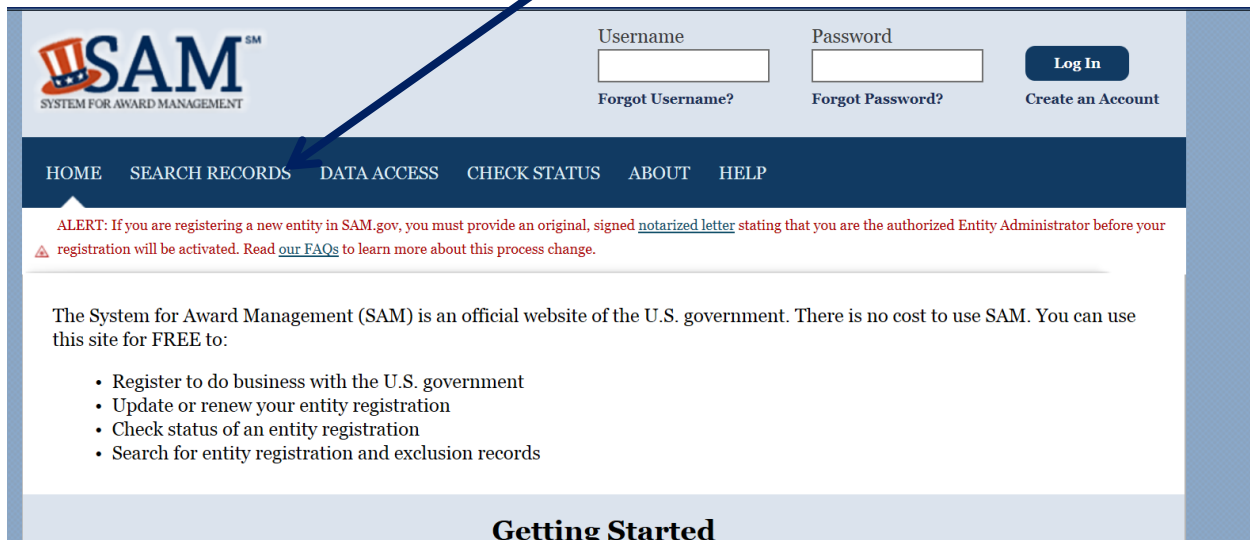
University Representative's Name (Printed)	Title	
University Representative's Signature	Date	

Appendix 3

Procedure for Checking for Suspension and Debarment

Step 1: Go to <https://www.sam.gov/SAM/>

Step 2: Click on **Search Records** at the top of the page

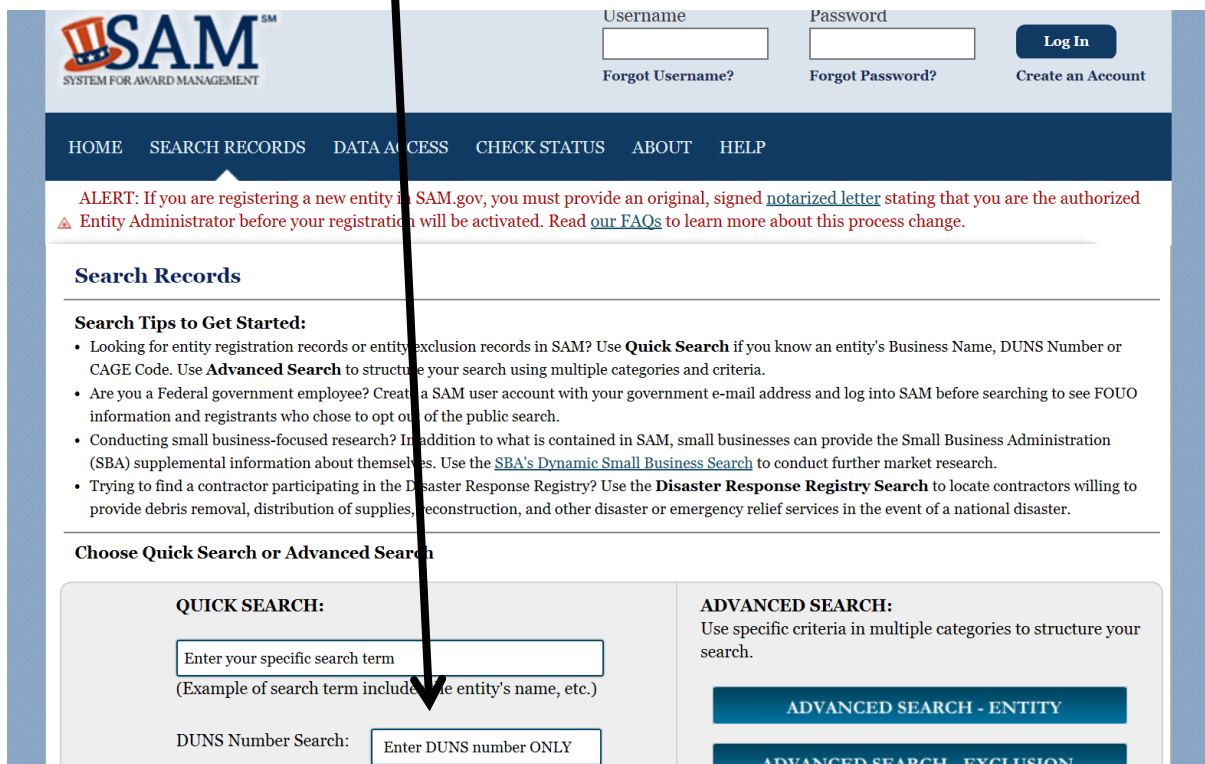


The screenshot shows the SAM.gov homepage. At the top right, there are login fields for Username and Password, with links for 'Forgot Username?' and 'Forgot Password?'. A 'Log In' button and a 'Create an Account' link are also present. The main navigation bar includes links for HOME, SEARCH RECORDS, DATA ACCESS, CHECK STATUS, ABOUT, and HELP. Below the navigation bar, there is an alert message and a section titled 'Getting Started' which lists several actions users can take on the site.

Getting Started

- Register to do business with the U.S. government
- Update or renew your entity registration
- Check status of an entity registration
- Search for entity registration and exclusion records

Step 3: Enter DUNS Number. This is requested prior to initiating efforts to develop task orders or Memoranda of Agreements for research projects. You can search by company name in the **Quick Search** box if needed.



The screenshot shows the 'Search Records' page on SAM.gov. It includes a 'Search Tips to Get Started' section with several bullet points. Below this, there is a section titled 'Choose Quick Search or Advanced Search' which contains two search options: 'QUICK SEARCH' and 'ADVANCED SEARCH'. The 'QUICK SEARCH' section has a text input field for a specific search term and a 'DUNS Number Search' field. The 'ADVANCED SEARCH' section has buttons for 'ADVANCED SEARCH - ENTITY' and 'ADVANCED SEARCH - EXCLUSION'.

Search Records

Search Tips to Get Started:

- Looking for entity registration records or entity exclusion records in SAM? Use **Quick Search** if you know an entity's Business Name, DUNS Number or CAGE Code. Use **Advanced Search** to structure your search using multiple categories and criteria.
- Are you a Federal government employee? Create a SAM user account with your government e-mail address and log into SAM before searching to see FOUO information and registrants who chose to opt out of the public search.
- Conducting small business-focused research? In addition to what is contained in SAM, small businesses can provide the Small Business Administration (SBA) supplemental information about themselves. Use the [SBA's Dynamic Small Business Search](#) to conduct further market research.
- Trying to find a contractor participating in the Disaster Response Registry? Use the **Disaster Response Registry Search** to locate contractors willing to provide debris removal, distribution of supplies, reconstruction, and other disaster or emergency relief services in the event of a national disaster.

Choose Quick Search or Advanced Search

QUICK SEARCH:

Enter your specific search term
(Example of search term includes the entity's name, etc.)

DUNS Number Search: Enter DUNS number ONLY

ADVANCED SEARCH:
Use specific criteria in multiple categories to structure your search.

ADVANCED SEARCH - ENTITY

ADVANCED SEARCH - EXCLUSION

Step 4: Review the record to make sure it is the correct organization, the license hasn't expired and the record says ACTIVE which is the debarment piece. If all are good, then right click and print this out and save it in the "Contract Documents" folder in the research project file in ProjectWise. The print out shows the date printed at the bottom of the sheet just in case there are any issues of when this was checked. We do this for the contract research entity and any subcontractors that are listed in the contract.

View Details - Entity Overview | System for Award Management Page 1 of 1

[Log In](#)
[Forgot Username?](#) [Forgot Password?](#) [Create an Account](#)

ALERT: If you are registering a new entity in SAM.gov, you must provide an original, signed [notarized letter](#) stating that you are the authorized Entity Administrator before your registration will be activated. Read [our FAQs](#) to learn more about this process change.

Entity Dashboard

- Entity Overview
- Entity Registration
 - Core Data
 - Assertions
 - Reps & Certs
 - POCs
- Exclusions
 - Active Exclusions
 - Inactive Exclusions
 - Excluded Family Members

[RETURN TO SEARCH](#)

KNIFE RIVER CORPORATION - NORTHWEST

DUNS: 009041427 CAGE Code: 07GP4
Status: Active

32260 OLD HWY 34
TANGENT, OR, 97389-9770,
UNITED STATES

Expiration Date: 10/17/2018
Purpose of Registration: Awards

Entity Overview

Entity Registration Summary

Name: KNIFE RIVER CORPORATION - NORTHWEST
Business Type: Business or Organization
Last Updated By: Elan Gerg
Registration Status: Active
Activation Date: 10/17/2017
Expiration Date: 10/17/2018

Exclusion Summary

Active Exclusion Records? No

IBM v1.P.12.20180406-1123
WWW2

This is a U.S. General Services Administration Federal Government computer system that is "FOR OFFICIAL USE ONLY." This system is subject to monitoring. Individuals found performing unauthorized activities are subject to disciplinary action including criminal prosecution.

[Search Records](#)
[Data Access](#)
[Check Status](#)
[About](#)
[Help](#)

[Disclaimers](#)
[Accessibility](#)
[Privacy Policy](#)

[FAPIS.gov](#)
[GSA.gov/IAE](#)
[GSA.gov](#)
[USA.gov](#)

Appendix 4

Research Project Management Guide

ITD Research Project Management Guide

The Idaho Transportation Department (ITD) Research Program relies on department managers and staff to oversee research projects and facilitate implementation of research results. This guide provides an overview of the roles and responsibilities of individuals serving as Project Sponsors, Project Managers, and Technical Advisory Committee (TAC) members for ITD research projects.

- **Project Sponsors** – Each research project is overseen by a Project Sponsor, the ITD manager who requested the research project. Project Sponsors generally must be in section or program manager positions or higher at headquarters or in the districts and are responsible for championing the research and facilitating implementation efforts.
- **Project Managers** – A Project Manager is designated for each research project. In some cases, the Project Sponsor may opt to concurrently serve as the Project Manager. In other instances, the Project Sponsor may designate one of their staff to serve as Project Manager. Project Managers take the lead in ITD's day-to-day oversight of research projects. They serve as the key contact with the researchers and chair the project Technical Advisory Committee. They also are responsible for reviewing project invoices, monitoring the project schedule and budget, and coordinating review of deliverables.
- **Technical Advisory Committee** – A Technical Advisory Committee (TAC) is established for each project. The TAC is comprised of the Project Sponsor, Project Manager, and ITD subject matter experts and individuals who will likely be end users of the research. Project Technical Advisory Committees always include a representative from the Federal Highway Administration's Idaho Division Office. In addition, committees may include individuals from outside the department, including representatives from partner agencies, industry associations, etc. The Technical Advisory Committee helps ensure the research remains focused on the project objectives, produces deliverables that are high quality and meet department needs, and provides recommendations that are practical and implementable.
- **FHWA Project Advisor** – At the request of the ITD Research Program Manager, FHWA's Idaho Division Office assigns a staff person to serve as Project Advisor for each research project. The FHWA Division Office is responsible for approving the department's annual SPR Work Program and overseeing the department's use of these funds. The FHWA Project Advisor plays an important role in this oversight and also provides valuable technical expertise by serving as a member of the project TAC and participating in project-related meetings and review of project deliverables.

Development of the Scope of Work

The Project Sponsor and Project Manager are responsible for working with the researchers to craft the detailed scope of work that will guide the project. They are charged with making sure the project objectives are clearly defined and achievable, identifying the work tasks that need to be performed to accomplish the objectives, and identifying the deliverables needed to facilitate implementation of the research results.

Development of the scope of work begins when ITD staff develop a research request proposing a project. The ITD Research Request Form requires that the sponsor articulate the project objectives, identify needed tasks and deliverables, and describe how the research results will be implemented. This and other forms and documents referenced in this guide are available in the Research Project Management Guidance and Resources folder for the Research Program in ProjectWise (see the section of this document on Maintenance of Project Records for information on how to connect to ProjectWise

For projects with Idaho universities, ITD Form 1013, Cooperative Transportation Research Program Project Task Order, is to be used to define the scope of work for approved projects. This form references the master agreements that have been established with Idaho universities to spell out general provisions for cooperative research projects such as invoicing requirements, procedures for handling disputes, requirements for Title VI reporting, etc. The task order form then details the specifics for individual projects including the objectives, tasks, deliverables, schedule, and budget.

An ITD Form 1013 is not used for projects with non-Idaho universities or private firms. For projects with other public universities, agreements are developed that contain requirements similar to those included in the master agreements with Idaho Universities. The specifics of the project are then specified in a solicitation developed by the ITD Project Sponsor and Project Manager and the proposal developed by the selected researchers. The solicitation and/or proposal are then included in the agreement by reference. Contracts for projects done with private firms are handled through ITD's Consultant Services Group or Business Support Management Section and follow their procedures.

A copy of the signed task order or agreement and any approved amendments are to be included in the Contract Documents folder in the project folder in ProjectWise. Copies of the Master Agreements with Idaho universities are available in the Research Program's ProjectWise folders. Please review the Master Agreement/Contract language to ensure you understand the general requirements. If you have questions regarding the provision in the master agreement or contract contact the Research Program Manager for clarification.

Project Meetings and Communication

Regular communication between the research team and the Project Sponsor, Project Manager and Technical Advisory Committee is critical to the success of research projects.

The Project Manager is expected to communicate regularly – at least one a month – with the Principal Investigator (lead researcher) to monitor study progress and keep abreast of any issues that arise. Communication can be by phone, e-mail, or face-to-face meeting.

The Project Manager is also responsible for working with the Principal Investigator to schedule project meetings with the Project Sponsor, Technical Advisory Committee, and FHWA Project Advisor. Meetings generally should be scheduled on at least a quarterly basis to ensure regular, ongoing communication between the researchers and the TAC throughout the project. Key meetings include:

- The Project kick-off meeting to discuss the scope of work, project schedule, and support needed from ITD (data, materials, identification of field locations, traffic control, etc.)
- Quarterly meetings held throughout the research phase of the project to discuss work performed, support needed from ITD, issues that could impact the project schedule, and review of interim deliverables.
- Findings review meeting to be held at the end of the research phase to discuss study findings and the researchers' preliminary conclusions and recommendations prior to drafting the final report.
- Report review meeting to discuss TAC feedback on the draft report submitted by the research team.

Meetings can be face-to-face or can be done through teleconferencing or webinar. The researchers can often schedule web-based meetings using tools like Zoom or GoTo Meeting. The Research Program Manager can schedule ITD-hosted WebEx meetings when requested by the Project Manager.

Prior to each meeting, the research team should prepare a PowerPoint presentation or quarterly report summarizing work performed, research results and conclusions to date, planned work in the next quarter, and any issues that could impact the research. The slides or quarterly report should be delivered to the Project Manager 3-5 business days prior to scheduled meetings and distributed by the Project Manager to all TAC members for review prior to scheduled meetings.

The Principal Investigator is responsible for preparing written minutes for each meeting and delivering them to the Project Manager within 5 business days following the meeting. The minutes should document any decisions made as well as action items and the individuals responsible for completing them. The Project Manager is responsible for coordinating review of the minutes by the TAC, communicating any needed changes to the Principal Investigator, and posting the final minutes to the Correspondence and Meeting Minutes folder for the project in ProjectWise.

Review of Invoices and Budget Monitoring

ITD's master agreements with Idaho universities and contracts with out-of-state universities and private firms generally require monthly invoicing of project-related costs. In some instances, agreements may specify that payments are to be made following ITD acceptance of task completion or project deliverables. It is important to review the payment terms in the master agreements and contracts to ensure you understand these provisions.

Invoices are to be submitted directly to the Project Manager via e-mail. Project Managers serve as the official Agreement Administrator for research projects and are responsible of reviewing invoices and submitting them for payment.

The invoices are to be accompanied by the following supporting documentation:

1. A completed ITD 0771 form, using a current version of the form available on ITD's website at <https://apps.itd.idaho.gov/apps/formfinder2dmz>, signed by the Principal Investigator
2. An updated Gantt chart depicting progress on the research project through the reporting period
3. Itemized expenditure reports and payroll detail reports supporting the payment amounts requested in the invoice

The Project Manager is responsible for ensuring that the information submitted is complete and accurate. If the information submitted is incomplete or contains errors, the Project Manager must notify the Principal Investigator and the individual who submitted the invoice for payment (typically with the Office of Sponsored Programs or similar unit) and ensure needed corrections are made before submitting the invoice packet for payment.

Once the information submitted is complete and accurate, the Project Manager completes the Consultant Performance section of the 0771, indicates that the invoice is a progress payment, and signs and dates the form as the Agreement Administrator. The Project Manager is also responsible for having the invoice and supporting materials reviewed by Secondary Reviewer. The Secondary Reviewer must be an ITD staff person with knowledge of the project. The Secondary Reviewer typically is the Project Sponsor or a member of the project TAC. The Secondary Reviewer also must sign the 0771 Form.

Once reviewed and approved by the Project Manager and Secondary Reviewer, the invoice and accompanying documentation must be submitted by the Project Manager via e-mail to the DES/DEPP Financial Techs at HQHWYAP. The invoice should be at the front of the packet followed by the 0771 Form and the supporting information. The Project Manager should write on the invoice that it is "OK to pay," specify the encumbrance number for the project, and initial and date it. The subject line of the e-mail should include the research project number, the invoice number, and the timeframe covered by the invoice.

After submitting the invoice for payment, the Project Manager is responsible for saving a copy of the approved invoice packet in the Invoice and Budget folder for the project in ProjectWise and updating the expenditure tracking spreadsheet in that folder. The spreadsheet is designed to keep track of each payment and the combined payments and remaining balance for the project as well as the encumbrance balance.

When research projects are extended, the Project Manager is responsible for notifying the Headquarters Highways Financial Techs so the project service dates can be extended in the Advantage systems. For more information on this, see the Task Order Amendments Section of this guidance.

Maintenance of Project Records

ProjectWise is used to maintain the official files for ITD research projects.

Many of you have ProjectWise on your computers and are familiar with using it for maintaining files for ITD projects. For you, the Research Program folders are located in the Headquarters folder at the

following network server path:

pw:\\itdhq1app57.itd.state.id.us:PWITD\Documents\Headquarters\Research\.

Staff who do not have ProjectWise on their computers can access the system on the web by clicking on this link: <https://mobileprojects.itd.idaho.gov>. This will take you to a log-in page you can bookmark. In the username box type "ITD/" and the username you use to log into your work computer and e-mail. In the password box enter the current password you use to log into your work computer and e-mail. Remember that you'll need to update the password whenever you modify it on the network.

The Research Program Manager is responsible for creating a set of standard folders for each project. Standard project folders include:

- Contract Documents
- Invoicing and Budget
- Correspondence and Meeting Minutes
- Deliverables
- Implementation

Project-related information should be saved to these folders using consistent naming practices. Each file name should begin with the research project number (e.g. RP 283). It is important to keep the file names simple and consistent (e.g. RP 283 Invoice 1, RP 283 Invoice 1, RP 283 Deliverable 1 Draft 1, RP 283 Deliverable 1 Final) so that documents can be easily located when needed. The Project Manager has primary responsibility for maintaining project files. Additional folders and subfolders can be added to the project folder as needed.

All members of the project Technical Advisory Committee should have access to the project folders and read-write permission to documents in the folders. Other department staff generally can read project files, but do not have permissions to add documents to the project folders or modify them. If other ITD staff or members of the research team require permissions to research files, you can request that they be added by contacting the Research Program Manager or the IT Senior Systems Integration Analyst who supports ProjectWise in the Enterprise Technology Services Section's Business Application Management Unit.

In some cases, the research team may need access to the ProjectWise folders. Public university researchers can be granted access to ProjectWise. The Project Manager should contact the IT Senior Systems Integration Analyst who supports ProjectWise in the Enterprise Technology Services Section's Business Application Management Unit to request access for members of the research team. Private research firms may also be granted access to the ProjectWise folders, provided that their firm has a license to the Bentley product.

Per the approved retention schedule for the Research Program, project files will be retained for three fiscal years following project completion. The final reports for research projects are to be retained permanently. Copies of the final report must be posted in the Final Reports folder for the Research Program in ProjectWise and also posted on the Research program's webpage at:

<http://itd.idaho.gov/alt-programs/?target=research-program>. The Research Program Manager is

responsible for posting final reports to this folder, having the final reports added to the program's webpage, and for deleting project files when the retention period is complete.

Coordination of Data/Information Gathering and Field Testing for Projects

Project Managers are responsible for assisting the researchers with collection of department data and information needed for ITD research projects. This could include identification of construction projects, collection of materials, providing information about ITD specifications and test methods, obtaining data from department automated systems, etc. Project Managers should provide the researchers with contact information for ITD staff in headquarters and the districts that can provide needed information. In addition, Project Managers should communicate directly with these staff to inform them about the research effort and project data/information needs, and to introduce them to the researchers.

In instances when the researchers have difficulty obtaining needed information from ITD staff, the Project Manager should follow-up as needed to encourage timely data submission. If this does not result in submission of the requested data/information, the Project Manager can request assistance from the Project Sponsor or Research Program Manager.

Some research projects require the researchers to collect data in the field (obtain cores, perform on-site testing, etc.). All field work must be done in accordance with applicable OSHA requirements and the researchers are subject to the same safety requirements as ITD staff. This includes wearing approved safety vests, safety toed shoes, hard hats, eye and ear protection, etc. It also includes ensuring that necessary traffic control is in place for the work to be performed. It is critical that the appropriate district staff be contacted in advance and involved in planning and coordinating this field work. Historically, any costs for traffic control and support for field work have been borne by the districts and not charged to the Research Program. However, money can be included in the initial research request to cover expected costs for contracted traffic control (see Section 7 of the Research Request Form).

In some cases, it may also be necessary for the Project Manager to request that the researchers be granted VPN access so they can obtain data from department systems. In these instance, the Project Manager should provide VPN authorization forms to the researchers and submit them to ETS for approval.

Review of Project Deliverables

The Project Sponsor and Project Manager have primary responsibility for ensuring the interim and final deliverables prepared by researchers accurately describe department practice, are clear and of satisfactory quality, and meet department needs. Deliverables can include a literature review, survey results, data sets, data analysis results, training materials, draft specifications, as well as the final research report. Deliverables are to be submitted to the Project Manager, who is responsible for posting them to the Deliverables folder for the project in ProjectWise.

The Project Manager notifies TAC members of the receipt of deliverables and sets the deadline for completing their review (generally within 2-3 weeks). TAC Members should add their comments directly

in the document in ProjectWise by checking it out, inserting comments as needed, and checking the document back in. It is important that TAC members add their comments in a timely fashion and check the document back in so it is available to other reviewers.

Where feasible quarterly project meetings should be scheduled to allow TAC members to discuss project deliverables with the researchers.

In instances when project payments are to be made based on ITD acceptance of deliverables, the Project Manager is responsible for notifying the Principal Investigator and Office of Sponsored Programs via e-mail of ITD acceptance of the deliverables. This notification should prompt the university or research firm to submit an invoice for billable costs associated with producing the deliverable.

A final report is to be completed for each research project. The master agreements with Idaho universities and project agreements/contracts with other universities and private sector researchers contain a number of provisions regarding the final report for research projects. The reports are to be developed using the current version of the research report template available in the Resources for Researchers section of the ITD Research Program website (<http://itd.idaho.gov/alt-programs/?target=research-program>). In addition, the formatting of the report must be consistent with the *ITD Research Program Report Process and Style Guide*, which is also available in the Resources for Researchers section of the webpage.

Prior to submitting a draft of the final report to ITD, the researchers are to obtain a review of the draft by a qualified peer reviewer approved by the Project Manager. The peer reviewer is often selected at the start of the project and identified in the task order or project agreement. The report is also to be reviewed by an editor, who is responsible for ensuring the report is formatted in a manner consistent with ITD's style guide. The researcher is to provide a copy of the peer reviewers comments on the draft report and a summary of changes made to the draft to address the peer review comments when submitting the draft. These items should be included in the Deliverables folder in ProjectWise with the draft deliverable.

The Project Manager then notifies the TAC members that the draft is available for review and sets a deadline for completing the review of the report. As with the interim deliverables, TAC members are expected to add their review comments into the document, by checking it out from the Deliverables folder in ProjectWise, inserting their comments and checking the document in so others can add their comments. It is recommended that the Project Manager schedule a meeting between the researchers and TAC at the end of the review period to discuss needed changes.

The researchers then typically have 3-4 weeks to revise the report and resubmit it to the Project Manager for final review. The Project Sponsor and Project Manager have primary responsibility for reviewing the revised draft and accepting the final products. Typically 3-4 weeks are budgeted for final review, revisions, and report acceptance.

Publication of Project Information

ITD's master agreements with Idaho Universities and contracts with other universities generally include provisions that allow both parties to publish research-related information. For instance, the language in ITD's master Agreement with the University of Idaho specifies:

ITD and UI each have the right to publish materials based on information produced under this contract. Both parties agree to notify the other of any materials to be published as a result of this agreement at least thirty (30) days prior to their publication.

All published materials produced by UI as a result of this agreement shall include the following statement:

"The contents of this report, funded by the Idaho Transportation Department and the Federal Highway Administration, reflect the views of the authors, who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Idaho Transportation Department or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation."

Papers published prior to ITD's acceptance of the final report must also include a statement indicating that ITD has not yet accepted the final report.

The provisions in this section are not intended to limit discussions of the study by small technical groups or in lectures to employees or students. In addition, nothing in this agreement will be construed to affect the preparation and filing of a thesis or dissertation by students working on this study in accordance with the practices normally followed or required by regulations."

Check the master agreement with the appropriate Idaho university or in the contract with other universities to become familiar with publication requirements.

Task Order Amendments

The Project Manager is responsible for approving requests for no-cost extensions and proposed reallocation of approved project funding. These requests should be submitted by the university or research firm in writing. The requests must explain the reason for the proposed change (schedule change or budget reallocation) and provide a revised schedule for the remaining tasks or detail on proposed reallocation of funding. The Project Manager can approve requests by signing and dating the approval line in the request letter or preparing an approval letter and sending it to the Principal Investigator and Office of Sponsored Programs. Samples of these letters are available in the Research Project Management Guidance and Resources folder for the Research program in ProjectWise. Copies of the request and approval must be posted by the Project Manager in the Contract Documents folder for the project in ProjectWise.

The Project Manager is responsible for submitting a copy of letters approving no-cost time extensions to the Headquarters Highways Financial Techs. The Financial Techs will use this invoice to update the

service dates for the project in Advantage, allowing payments to continue through the extended contract period. When submitting the approval letter to the Financial Techs, please specify the Encumbrance # for the projects the revised service dates, and explain why the service dates are being extended.

Requests to increase the approved budget generally require an amendment to the original task order or contract. Contract amendments require the approval of the Research Program Manager and/or the Division of Highways Development Administrator (Chief Engineer).

Project Closeout

Once ITD has accepted the final deliverables for research projects, the university or research firm can submit their final invoice for project costs. ITD's master agreements and contracts typically specify that the final 10 percent of approved project funding be withheld until the department accepts the final project deliverables.

The final invoice is due no more later 90 days after the contract end date. The invoice must be clearly marked as the "Final Invoice," indicating that the university or research firm will not be billing for any additional costs associated with the project. The total payment for work performed on individual projects, including direct costs and overhead, shall not exceed the maximum budget amount specified in approved task orders.

Once the Project Manager has submitted the final invoice for payment and the final payment made, the Research Program Manager will request that the encumbrance set up for the project be closed and any remaining funds released.

As part of closeout, the Project Manager must ensure that all necessary project documentation has been saved to the official project files in ProjectWise.

The Project Manager also must determine the number of printed copies of the report needed for the research team, Technical Advisory Committee members, other ITD staff and report users. The Project Manager is responsible for notifying the Research Program Manager of the number of copies needed. The Research Program Manager will then submit a printing request to the ITD Print Shop and distribute the reports as requested. A copy of the final report will also be posted on the Research Program's webpage and the report distributed to the other agencies/libraries as required.

Implementation of Research Results

ITD's Research Program primarily supports applied research. The goal of research efforts is to find solutions to problems faced by the department and to improve department operations and services.

The ITD Project Sponsor has primary responsibility for facilitating implementation of research results. This manager, who made the initial request for the project, is expected to champion implementation of the research results. The Project Sponsor and other staff involved in overseeing research projects should be thinking about implementation of research results from the very beginning. When developing

the task order, it is important to ensure that the work performed and required deliverables will provide the information and tools needed to support implementation efforts.

Although research funds cannot be used for direct implementation costs, research projects can include development and technology transfer activities that will support implementation of the research results when the study is complete. Development and technology transfer activities that can be included in the scope of a research project include:

- Creation of software tools
- Development of databases
- Preparation of draft specifications and new test methods
- Development of user guides
- Development of training material
- Delivery of training to share information about the research results and how to use the products and tools developed through the research

To the extent feasible, these types of activities and products should be included in the scope of work.

It is essential that the Project Sponsor, Project Manager, and TAC members remain engaged in the research throughout the project to help ensure the research remains on track and the project objectives are achieved. Research Implementation Planning Worksheet has been developed as a tool that Project Sponsors, Project Managers, and TAC members can use throughout the process to help focus on implementation. The worksheet prompts ITD staff involved in research projects to consider questions like.

- What is the problem to be solved?
- What are the objectives of the research and the desired outcomes?
- What are the products and deliverables needed for implementation?
- What are the potential obstacles to successful implementation?
- What strategies could be employed to overcome the identified obstacles?
- What is the target audience for research implementation?
- What are the key tasks associated with implementing the recommendations?
- Who is responsible for completing the tasks?
- What is the schedule for completing the implementation tasks?
- What resources are needed for implementation?
- How should we evaluate project and implementation success?

Focusing on these questions throughout the research process can help ensure that the research is useful and the results of the research are put in practice.

The Project Sponsor and Project Manager should consider how best to communicate information about the research and results to end users. This can include involving end users on the project Technical Advisory Committee. Including end users on the TAC gives them the opportunity to articulate the issues they are facing and the needs they have to improve operations and services. It also enables them to have input regarding the tools being developed and the implementation recommendations.

Communication can also include surveying end users to better understand their needs, sending e-mails or including articles in the Transporter to keep them informed of research efforts, and holding workshops and training sessions to share research results. The research team can often help with these efforts by drafting surveys, analyzing the results and sharing them with the TAC, preparing Transporter articles on the research, and preparing training materials and delivering training.

A State Planning and Research (SPR) Accomplishments Report is developed each year to document work performed in the previous federal fiscal year and to highlight implementation efforts. The Research Program Manager coordinates development of this document, which is typically submitted to the FHWA Idaho Division Office in January. The Research Program Manager will develop a report template for the SPR Accomplishments report and post it on SharePoint. Project Sponsors and Project Managers will be provided a link to the template and are expected to provide a summary of work performed and implementation efforts for ITD research projects assigned to them.

In addition, the Research Program Manager reports annually to the Idaho Transportation Board and Executive Team members each November summarizes research and implementation efforts in the past year and planned research in the coming year. As part of these presentations, a couple of Project Sponsors or Project Managers are asked to share information about their research projects and how the research results are or will be used. The Research Program is interested in doing more to demonstrate the value of or research efforts and the return on investment. The Research Program Manager will be following up on research implementation one year and three years after completion of the research project to gather information on research implementation. Project Sponsors and Project Managers are asked to maintain documentation on research implementation efforts and benefits of implementing the research (cost savings, improved performance, safety benefits, etc).

Finally, thanks to everyone who serves as Project Sponsors, Project Managers, and TAC members for research projects. We realize this is an added responsibility to your job. Your work to provide oversight to department-funded research is critical to the success of projects. In addition, your involvement in research efforts to improve the department's operations and services can help demonstrate that the department is innovative and a good steward of resources.

Appendix 5

FHWA Form F1700.7

1. Report No. FHWA-ID-(will be filled in by ITD)	2. Government Accession No. Leave Blank – erase before final	3. Recipient's Catalog No. Leave Blank – erase before final	
4. Title and Subtitle Research Title		5. Report Date Date published	
		6. Performing Organization Code Leave Blank – erase before final	
7. Author(s) (LIST ALL AUTHORS- erase this phrase before final) First name, middle initial, last name.		8. Performing Organization Report No. Add the billing code	
9. Performing Organization Name and Address Type your organization's name and address		10. Work Unit No. (TRAIS) Leave Blank – erase before final	
		11. Contract or Grant No. Leave Blank – erase before final	
12. Sponsoring Agency Name and Address Idaho Transportation Department (SPR) Division of Construction and Operations, Contracting Services, Research Program PO Box 7129 Boise, ID 83707-7129		13. Type of Report and Period Covered Final or Interim Report mm/dd/yyyy - mm/dd/yyyy	
		14. Sponsoring Agency Code RP	
15. Supplementary Notes Project performed in cooperation with the Idaho Transportation Department and Federal Highway Administration.			
16. Abstract Approximately 200 word description of the project.			
17. Key Words KEYWORDS		18. Distribution Statement Copies available online at http://itd.idaho.gov/alt-programs/?target=research-program	
19. Security Classification (of this report) Unclassified	20. Security Classification (of this page) Unclassified	21. No. of Pages Add the total # of pages	22. Price None

FHWA Form F 1700.7

Appendix 6

ITD Form 0771, Professional Agreement Invoice and Progress Report



Professional Agreement Invoice and Progress Report

Idaho Transportation Department

ITD 0771 (Rev. 01-17)
itd.idaho.gov

This page must be filled out monthly by the Consultant and forwarded to the Agreement Administrator with the monthly invoice. If necessary, attach additional sheets for continuation.

Key Number []	Project Number []	Project Name []	Date []
Agreement Administrator []		Progress Report Number []	Agreement Number []
Consultant's Name []			Report/Billing Period (From and To) []
Prompt Payment To Subconsultant(s) Verified <input type="checkbox"/> Yes <input type="checkbox"/> No		Authorization Number []	Invoice Number []
Describe Work Accomplished During the Month (List Major Activities that were in progress during this period and estimate the remaining time for each.) []			
Summarize Work Completed to Date (Milestones Completed and Dates) (List Major Activities that were completed, including completion dates.) []			
List Information Required from ITD to Avoid Delays []			
List Changes in Scope or Complexity that Requires a Supplemental Agreement or Time Adjustments []			
Printed Name []	Title []	Consultant's Signature []	

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Page 1 of 2

Professional Agreement Invoice and Progress Report

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Idaho Transportation Department

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Status Report This page must be completed by the Agreement Administrator

A completed status report must accompany all Agreement invoices recommended for payment. The requested percentage of progress measurements for this report/billing period are required.

Key Number []	Program Number []	Progress Report Number []	Agreement Number []
Agreement Time []	Time Passed []	Percent of Agreement Time Elapsed [] %	Percent of Work Completed [] %
Original Agreement Amount \$ []	Supplemental(s) \$ []	Current Agreement Amount \$ []	Payments (Including this Payment) \$ []
Percent of Agreement Dollars Paid [] %			
Prompt Payment To Subconsultant(s) Verified <input type="checkbox"/> Yes <input type="checkbox"/> No	Fixed Fee \$ []	This Invoice \$ []	To Date \$ []
Negotiated \$ []			
If There is a Significant Variance Between the Percentages, Please Explain []			
Consultant Invoice Number []		This Payment Amount \$ []	
Report Reviewed By []			Review Date []

Consultant Performance To Be Completed Monthly by the Agreement Administrator

Work planned for this period was completed <input type="checkbox"/> Yes <input type="checkbox"/> No	Quality of work was completed satisfactory <input type="checkbox"/> Yes <input type="checkbox"/> No	Discussed performance with Consultant <input type="checkbox"/> Yes <input type="checkbox"/> No
Explain []		
Performance: Describe the Consultants performance during this period []		

☐ **Progress Payment:** I certify that the Agreement provisions have been reviewed, the invoice amount checked, progress is substantiated, significant material expenses have support documentation (receipts), and the costs billed are project related and represent the work accomplished. I hereby approve the progress estimate for payment.

☐ **Final Payment:** I certify that all work under the terms of the Agreement has been satisfactorily completed, any capital assets acquired have been delivered or value received, an affidavit of indebtedness received, and the project reviewed or audited and costs verified for work performed. I hereby approve final payment under the Agreement.

Agreement Administrator's Signature []	Date []	Second (Independent) Reviewer's Signature []
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