



Memorandum

To: RRC Members
Steve Albert/WTI
Debbie Alke, Administrator/ Aeronautics Division
Mike Bousliman, Administrator/Information Services Division
Jeffery M. Ebert, P.E./District Administrator-Butte
Larry Flynn, Administrator/ Administration Division
Dwane Kailey, Administrator/Highways and Engineering Division
Bob Seliskar/FHWA
Jon Swartz, Administrator/Maintenance Division
Mike Tooley/Director
Duane Williams, Administrator/Motor Carrier Services Division
Pat Wise/Deputy Director
Lynn Zanto, Administrator/Rail, Transit, and Planning Division

From: Susan C. Sillick, Manager
Research Programs

Date: October 27, 2016

Subject: September 30, 2016 RRC Meeting Notes

RRC Members Present: Debbie Alke, Mike Bousliman, Dwane Kailey, Bob Seliskar, Sue Sillick, Jon Swartz, Mike Tooley, Duane Williams, Pat Wise, and David Jacobs for Lynn Zanto

Others Present: Mike Dyr Dahl and Matt Strizich

1. **Budget Report:** Attached

No discussion

2. **[Research Projects - current listing](#)**

No discussion

3. **Reports:** Available on Research [website](#)

- a. **Feasibility of Non-Proprietary UHPC for Use in Highway Bridges in Montana (14-002)-** Task 1 report
- b. **Safety Impact of Differential Speed Limits on Rural 2-Lane Rural Highways in Montana (13-002)-** Project Summary and Final reports
- c. **Advanced Methodology to Determine Highway Construction Cost Index (14-022) -** Tasks 1-3 report

No discussion

4. **Proposals:** None

5. **Implementation/Performance Measures/Technology Transfer: None**
6. **Research Project Idea Prioritization, Selection, and Development – Attached**
7. **Department/Division Hot Topics – RRC Members Roundtable Discussion**

If you have any additions to the agenda, please contact me at 444-7693 or ssillick@mt.gov. You will be notified of any last minute additions to the agenda by E-mail.

Copies: Craig Abernathy/Research Section

Audrey Allums/Grants Bureau
Kent M. Barnes, P.E./Bridge Bureau
Katy Callon/Research Section
Kevin Christensen/Highways and Engineering Division
Kris Christensen/Research Section
Ryan Dahlke, P.E./Consultant Design Bureau
Lisa Durbin/Construction Administration Bureau
Mike Dyrdaahl/Engineering Operations Bureau
Ed Ereth/Data and Statistics Bureau
Dave Hand/District Administrator-Great Falls
Paul Jagoda, P.E./Construction Engineering Services Bureau
Tom Martin, P.E./Environmental Services Bureau
Kraig McLeod/Multimodal Planning Bureau
Shane Mintz/District Administrator-Glendive
Roy Peterson, P.E./Traffic & Safety Bureau
Suzy Price/Contract Plans Bureau
Dustin Rouse, P.E./Highways and Engineering Division
Ed Toavs/District Administrator-Missoula
Lesly Tribelhorn, P.E./Highways Bureau
Jim Skinner/Planning and Policy Analysis Bureau
Rob Stapley/Right of Way Bureau
Jerry Stephens, P.E./WTI MSU
Stefan Streeter, P.E./District Administrator-Billings
Matt Strizich, P.E./Materials Bureau
File



**Research Project Identification,
Prioritization, & Selection
September 2016**

The Research Review Committee (RRC) is the governing committee for all research conducted for MDT, regardless of funding source.

MDT's Research Programs are internally-driven applied research, development, and technology transfer (RD&T) programs necessary in connection with the planning, design, construction, management, and maintenance of highway, public transportation, and intermodal transportation systems. Funding is limited and to keep research relevant to MDT staff, implementable results are required.

Definitions of Research

- ★ **Research** means a systematic study directed toward fuller scientific knowledge or understanding of the subject studied. It can be formally defined as a systematic controlled inquiry involving analytical and experimental activities that primarily seek to increase the understanding of underlying phenomena.
- ★ **Applied Research** means the study of phenomena to gain knowledge or understanding necessary for determining the means by which a recognized need may be met. Applied research serves to answer questions or solve problems. This research tends to respond to specific problems, providing realistic solutions, with lower risk and a short-term focus. **Applied Research is a focus of MDT's Research Programs.**
- ★ **Basic Research** means the study of phenomena, and of observable facts, without specific applications towards processes or products in mind. Basic research serves to increase knowledge and lays the foundation for advancements in knowledge that may lead to applied gains in the future. This research seeks comprehensive understanding and tends to be higher risk, with a long-term focus. In the transportation field, for the most part, basic research is conducted by the federal government, universities, and the private sector. **MDT does not conduct basic research.**
- ★ **Development** means the systematic use of the knowledge or understanding gained from research, directed toward the production of useful materials, devices, systems or methods, including design and development of prototypes and processes. Development tends to turn research results into useable materials, devices, systems, and methods. **Development is a focus of MDT's Research Programs.**
- ★ **Technology or Knowledge Transfer** means those activities that lead to the adoption of a new technique or product by users and involves dissemination, demonstration, training, and other activities that lead to eventual implementation. **Technology Transfer is a focus of MDT's Research Programs.**

- ★ **Implementation** means the widespread adoption of a new technique or product as a standard operating procedure or as an accepted alternative. Implementation activities can occur throughout the research process. **Implementation is a focus on MDT's Research Programs, making MDT Research relevant to MDT staff.**

What Research is not: While research may involve some of the below activities, they are not the main component of research.

- ★ Data collection
- ★ Implementation of operational changes (e.g. computerizing existing processes)
- ★ Routine testing
- ★ Training
- ★ IT development
- ★ Routine and/or periodic updates of plans, data, surveys, etc.

Applicable federal regulation & law, and other resources:

- ★ [23 CFR 420.203](#)
- ★ [23 USC 505](#)
- ★ [NCHRP Synthesis Report 355: Transportation Technology Transfer: Successes, Challenges, and Needs](#) (pages 7-8)
- ★ [NCHRP Synthesis Report 461: Accelerating Implementation of Transportation Research Results](#) (pages 6-7)
- ★ [NCHRP Synthesis Report 768: Guide to Accelerating New Technology Adoption through Directed Technology Transfer](#) (page 6)

Project Types

All projects, regardless of type, require a champion and sponsor; these roles may be filled by the same person if that person meets conditions for a sponsor as defined in the following text. The champion must be an MDT employee with a vested interest in the results and implementation of those results. This person typically chairs the project technical panel (TP), if one is formed (Note: Not all partnering projects will have a technical panel overseeing each project), and makes requests of and presentations to the MDT Research Review Committee (RRC). See MDT's Research Project Technical Panel Roles and Responsibilities document in Appendix A. The sponsor is a high level MDT manager, division or district administrator, or higher. This person agrees the topic is consistent with Department needs and goals, should be considered by a technical panel, if one is formed, and commits to ensuring implementation occurs, as appropriate.

- ★ **Administration High Priority:** Any project which the Administrative Staff deems necessary and funding is needed prior to the next annual research project funding cycle.
- ★ **Partnering Projects/Pooled Fund Projects:** Any project where MDT will not be the sole contributor of funds and funding is needed prior to the next annual research project funding cycle. Pooled fund projects (TPF) and AASHTO Technical Services Programs (TSP) are examples of partnering projects.

- ★ **Quick Response/Small Projects:** Any project where the cost is \$35,000 or less and 1 year or less in duration (suggest change to “low cost and short duration as defined in the Montana Partnership for the Advancement of Research in Transportation [MPART] contracts”) and funding is needed prior to the next annual research project funding cycle. Contracts with MSU-Bozeman, Montana Tech, and UM-Missoula are executed every seven years to facilitate rapid initiation of these projects. In addition to these contracted small projects, research staff conducts quick response activities, such as literature searches and surveys of other entities.
- ★ **Standard Research Projects:** Any project that does not qualify as any of the above.

Research Topic Solicitation

Research ideas can be submitted by anyone at any time on any research topic, as defined above; however, they may only be considered annually, unless they fall outside of the standard research project as described in the previous section. The Research Topic Statement form can be viewed at <http://www.mdt.mt.gov/research/unique/solicit.shtml>. Also, as previously mentioned, all research topics require an internal champion and sponsor.

Recommended Change #1 (optional): The RRC may want to identify priority research focus areas annually or on some other basis. If so, these areas would be advertised when topic statements are requested. Topic statements will still be accepted on any topic; however, those addressing a priority research focus area may be ranked higher.

Approved as is

Recommended Change #2: It is suggested, the topic statement process is changed to a two-stage process. Stage 1: ~~The champion~~ Anyone submits a Research Idea form (to be developed) by March 31st of each year, ~~and MDT staff/works~~ champion works with the MDT librarian to conduct a literature search on the topic to identify related ongoing and completed research. If research is ongoing on the topic, the champion may wish to wait until the research is complete to identify any additional related research topics or to initiate an implementation process and/or project (Stage 2). If research on the topic is complete, the champion will evaluate the research to determine if it meets the specific need. If so, the champion may want to initiate an implementation process and/or project (Stage 2). If completed research does not meet the specific need, the champion can initiate Stage 2. Implementation of research results can be a research project in and of itself; in this case, the implementation project will move forward to Stage 2. Stage 2: A Research Topic Statement form will be submitted by April 30th of each year to be considered in June of that same year for funding in the next federal fiscal year.

Recommended Change #3: It is suggested the Research Topic Statement Form contain the following additional fields, as well as the bulleted items listed in Recommended Change #45. Incomplete forms will be sent back to the submitter.

- ★ Related research
- ★ Funding source
- ★ Funding partners
- ★ Funding match

- ★ Cost estimate (an overestimate is better than an underestimate)
- ★ Estimated ICAP (to be completed by Research staff based on the latest ICAP information)
- ★ Research period (time to complete the project)
- ★ Potential technical panel members
- ★ Area(s) responsible for implementation

In lieu of identifying specific individuals for technical panel membership, stakeholder groups/entities could be identified. It must be realized that the cost and research period estimates are only that, as the final cost and research period will be based on the chosen research methods as described in the final proposal and approved by the RRC.

Approved as revised

MDT staff is encouraged to reach out to research staff, university staff, and others to discuss problems, as opposed to research needs. Once these problems are identified, potential for research solution(s) can be identified. Likewise, individuals interested in conducting research for MDT should make connections with MDT staff in their area of expertise to discuss MDT issues and the potential for research solution(s), matching researcher areas of expertise to MDT research needs. However, Research Topic Statements become the property of MDT and no entity is guaranteed to receive research contracts for their topic statements. Technical panels choose to contract directly with a public entity, issue an RFP, or to submit to another research program, such as the National Cooperative Highway Research Program (NCHRP). If a topic statement is submitted by a public entity, the panel will consider recommending the funding for the public entity first.

Topic statement champions will present their topic to the RRC and District Administrators annually at the May RRC meeting.

Research Topic Prioritization and Selection for Standard Research Projects

Who: RRC and District Administrators

When: Annually in June, after champions present at the May RRC meeting

How: The process is described below.

Recommended Change #4: The RRC and District Administrators will rank the topic statements after the champion presentations in May, but by the deadline set for receipt of June RRC meeting agenda items. Items to be considered in the ranking could include:

- ★ Priority research focus areas (see Recommended Change #1; e.g., TranPlanMT focus areas that lend themselves to research);
- ★ Scope, budget, and timeline are appropriate for available resources (limited funds need to be allocated to highest priorities) and timeliness/urgency of topic;
- ★ Importance (e.g., federal or state initiative or compliance);
- ★ Benefits and pay-off (including as they relate to MDT's mission and "strategic plan"; e.g., return on investment, cost/lives savings, etc.);
- ★ Implementability; and
- ★ Feasibility/probability of success/risk (What is success?)

Also, the RRC and District Administrators should identify additional technical panel members by naming individuals and/or stakeholder groups/entities. In addition, they should identify topic statements where they feel the requested funding is insufficient and identify an amount they feel is sufficient. Finally, rankers should identify any topic statements which they feel should not move forward.

Approved as is

~~Additionally, ranking guidance can be provided, similar to RFP proposal scoring guidance or it can be left totally up to the ranker. Alternatively, research topic statements could be rated, using a scale such as is used for NCHRP (0-5, with 0=no need and 5=absolute need) and the criteria could be weighted equally or differently. We used to have a weighted rating scale of 0-3; however, most of the time there was not a large difference in scores among topic statements to determine a true ranking.~~

Recommended Change #5: Research staff will compile the rankings, projects identified for potentially not moving forward, proposed technical panel members, and funding level changes, along with changes to estimated ICAP.

Approved as is

Recommended Change #6: The information compiled in Recommended Change #5~~6~~ will be discussed at the June RRC meeting. The results of which will be a final ranking, identification of panel members, funding level, and identification of topic statements that will not be moved forward.

Recommended Change #7: At the June RRC meeting, funding will be assigned to research topics based on their ranking, final estimated cost, and funding source(s), until all estimated available funds for research projects have been committed. Partial funding for projects will not be considered, unless, it makes sense to phase the project or it is a partnering project and the project is entirely funding by all of the partners.

Recommended Change #8: A 15% contingency should be held back to cover potential project costs higher than the original estimate and other needs that arise, such as Administration High Priority Projects, as described below.

Accepted as is

Research Topic Development and Proposal Solicitation for Standard Research Projects

Technical panels will be formed for the projects approved as a result of Recommended Change #7~~8~~.

Technical panels will continue to fulfill their role, as identified in Appendix A and as amended. Champions will review ongoing and completed research identified in Stage 1 with panel members. Technical panels will determine the specific research need (i.e., fine-tuning the Stage 2 Research Topic Statement into a scope of work (SOW). Panels will determine the most appropriate venue for research (e.g., MDT funded research, pooled fund study, or NCHRP project). Panels may determine the need for research does not exist or the research should be submitted to another research program, in these

cases, the panel will recommend the RRC cancel the project. This will all be documented in the Research Project Statement form, which can be found at http://www.mdt.mt.gov/other/webdata/external/research/docs/project_statement_form.pdf.

Based on the completed research project statement form, the technical panel will develop a scope of work (SOW).

Recommended Change #9: If the technical panel recommends a project be cancelled and the RRC approves cancellation, the estimated cost is returned as **available funds**.

Approved as is

Recommended Change #10: Sometimes, after discussion amongst technical panel members, the scope of the project changes from the original research topic statement. When the scope changes substantially (i.e., the SOW changes from the original intent; e.g., a different champion is required), the SOW will be presented to the RRC prior to requesting proposals. Also, if the estimated cost increases by 15% 20% or more, or there was any contention when the research topic statement was moved forward to a technical panel, the SOW will be presented to the RRC. Finally, the SOW for which an RFP will be issued will be presented to the RRC. ~~Technical panels have the authority to fine tune the SOW without RRC approval if the original intent does not change, the estimated cost does not increase by 20% or more, and if an RFP will not be issued.~~

Approved as revised

The SOW will be used to solicit a proposal(s) in one of two ways: one or more public entities may be asked to submit a proposal or an RFP will be issued. The time for proposal development can be quite varied depending on the topic, the method for obtaining each proposal, panel availability, and other factors.

Research Project Funding

Unless stated otherwise, funding is from federal appropriations or other sources and does not refer to state budget authority. State Planning and Research (SPR) funds are legislated as a 2% takedown of all federal funds provided to MDT through FHWA. Legislation also mandates a minimum 25% of SPR funds be allocated to RD&T activities.

The champion will present the proposal selected by the technical panel to the RRC for funding approval. The RRC may approve or reject the proposal, request clarification, or cancel the project.

Recommended Change #11: If the proposed funding for a project is not more than 20% greater than that identified at recommended change #~~7~~8 (excluding ICAP) and the proposal is approved by the RRC, the project will be contracted.

Pending a review of Commission criteria

Recommended Change #12: If the proposed funding for a project is more than 20% greater than identified at recommended change #~~7~~8 (excluding ICAP) and the proposal is approved by the RRC, the RRC will evaluate the availability of funds and determine if the project can be contracted at the current

time or not. Note: Contracting for projects resulting through an RFP must occur within a specified timeframe (currently, within 6 months of the original RFP posting date), or the RFP needs to be readvertised.

Pending a review of Commission criteria

Recommended Change #13: Projects that don't rank high enough to receive funding in the initial cut can be disposed of in a couple of ways, as determined by the RRC: 1) Any funding assigned to projects that are later cancelled can be reassigned to the next highest ranked project(s) and technical panels can be formed for these projects or 2) Champions can resubmit these Research Topic Statements to request funding in a future federal fiscal year.

Approved as is

Recommended Change #14: The estimated ICAP will be updated as soon as the ICAP rate is known for each successive state fiscal year (SFY), during which each project is active. If the ICAP rate increases, it will result in less funds available for non-standard research projects and/or funds available for the next cycle.

Approved as is

Recommended Change #15: Funds will be set aside for the following projects:

- ★ Administration of research activities by Research staff, as per budget sheets,
- ★ MDT staff participation in research activities, as per budget sheets,
- ★ Quick response/Small projects (FFY 2017 = ~~51,000~~ current commitment, includes ICAP),
- ★ LTAP SPR (FFY 2017 = \$60,000; Note: LTAP is exempt from ICAP),
- ★ NCHRP (FFY 2017 = \$460,000; less if the Rail, Transit, and Planning Division helps to support the 5.5% of total SPR funding level, no ICAP),
- ★ TRB Core Services Support (FFY 2017 = \$100,000, no ICAP),
- ★ AASHTO Technical Services Programs (TSP) (FFY 2017 = \$95,000 current commitment, includes ICAP), and
- ★ Pooled funds (~~FFY 2017 = \$87,000 current commitment, no ICAP~~)
 - ★ TLN = \$117,000 (SFY 2017)
 - ★ WAQTC = \$12,000 (FFY 2017)

Approved as revised

Non-Standard Research Projects

Administration High Priority Projects

These projects are deemed high priority by Administrative Staff and funding is needed prior to the next annual solicitation for research topics. These projects are assigned technical panel oversight.

Recommended Change #16: As soon as projects are identified, ~~available funds (includes contingency, quick response/small projects, and partnering fund set asides)~~ are diverted to these projects.

Approved as revised

Partnering Projects/Pooled Fund Projects

These projects are any project where MDT will not be the sole contributor of funds and funding is needed prior to the next annual research project funding cycle. Pooled fund projects (TPF) and AASHTO Technical Services Programs (TSP) are examples of partnering projects. Most partnering projects are assigned only a champion, as opposed to a full technical panel. TPFs are typically approved by FHWA for use of 100% SPR funds and they are not charged ICAP. However, some pooled funds are more planning in nature and do not fit the definition of research as documented above. The RRC will discuss funding these as the situations arise. Many AASHTO TSPs are approved by FHWA for use of 100% SPR funds; however, they are charged ICAP.

Recommended Change #17: For FFY 2017, no new partnering projects will be funded; see current funding commitment in Recommended Change #15. This will allow projects in the pipeline to be moved forward.

Approved as is

Recommended Change #18: Implement partnering project funding request, annual evaluation, and close-out evaluation forms, such as those identified for pooled fund projects from ILDOT (Appendices B-D) and NCDOT (Appendix E). While these example forms are specific to TPFs, the intent is to develop more generic forms that will be appropriate for all partnering projects.

Approved as is

Recommended Change #19: For multi-year partnering projects, funding may be approved for a maximum of three years and funding commitments will be made. However, it will be noted, participation in future years for which commitments have been made is dependent on the results of the annual evaluation and presentation as described in Recommended Change #18. Champions will be required to present annual progress to confirm the next year's commitment, if applicable, at the May RRC meeting. Funding decisions will be made at the June RRC meeting.

Approved as is

The Consultant Design Evaluation process will also be evaluated for potential implementation in Research.

Recommended Change #20: For FFY 2018 and beyond, annual limits should be developed by the June RRC meeting to allow contribution for current commitments and to additional partnering projects as they arise. Funding for partnering projects, will be approved on a first come, first serve basis, until the funding set aside is exhausted.

Approved as is

Quick Response/Small Projects

Quick Response/Small projects are any project where the cost is \$35,000 or less and 1 year or less in duration suggest change to "low cost and short duration as defined in the Montana Partnership for the Advancement of Research in transportation [MPART] contracts" and funding is needed prior to the next annual research project funding cycle. Contracts with MSU-Bozeman, Montana Tech, and UM-Missoula are executed every seven years to facilitate rapid initiation of these projects. The projects are assigned a technical panel. In addition to these contracted small projects, research staff conducts quick response activities, such as literature searches and surveys of other entities.

Recommended Change #21: For FFY 2017, no new quick response/small projects will be funded; see current funding commitment in Recommended Change #15. This will allow projects in the pipeline to be moved forward.

Approved as is

Recommended Change #22: For FFY 2018 and beyond, annual limits should be developed by the June RRC meeting to allow contribution for current commitments and to additional quick response/small projects as they arise. Funding for quick response/small projects, will be approved on a first come, first serve basis, until the funding set aside is exhausted.

Approved as is

Standard Research Projects

Standard research projects are any project that does not qualify as any of the above. The process and recommendations for these projects are on pages 2-6.

Work Plan Development

The Research portion of the SPR work plan will be developed annually in August and September for the FFY that begins in October. All RD&T activities planned for a particular year will be included in that annual work plan. If actual costs are unknown, estimates will be included.



APPENDIX A

RESEARCH PROJECT TECHNICAL PANEL ROLES AND RESPONSIBILITIES

GENERAL

Research Review Committee

The Research Review Committee (RRC) oversees the Research Projects Program. This committee:

- Along with the District Administrators, determines which research topics, submitted during the annual research solicitation, move forward to the technical panel stage based on champion presentation and additional ranking criteria, as detailed below.
 - Priority research focus areas (see Recommended Change #1; e.g., TranPlanMT focus areas that lend themselves to research);
 - Scope, budget, and timeline are appropriate for available resources (limited funds need to be allocated to highest priorities) and timeliness/urgency of topic;
 - Importance (e.g., federal or state initiative or compliance);
 - Benefits and pay-off (including as they relate to MDT’s mission and “strategic plan”; e.g., return on investment, cost/lives savings, etc.);
 - Implementability; and
 - Feasibility/probability of success/risk (What is success?)
- Identifies need for and approves high priority research topics, partnership projects, and small projects,
- Identifies technical panel members,
- Reviews technical panel recommendations (e.g., cancel, fund, implement) for each research project,
- Reviews and approves scopes of work for those research projects where an RFP is to be issued, the cost of the project has increased by 15%, or if there was any contention within the RRC when the project was approved to move forward to the technical panel stage,
- Approves funding for all MDT research projects based on the project proposal and technical panel recommendation,
- Approves funding for pooled-fund studies, based on the scope of work and staff recommendation,
- Reviews project progress, as desired, and
- Reviews and makes implementation recommendations.

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The RRC consists of a FHWA and MDT's:

- Director,
- Deputy Director,
- Administrators, and
- Research Manager.

The RRC meets at most monthly (typically last Wednesday of the month from 9 am to 12 pm). Agenda items must be prepared and final approximately 2 weeks prior to each RRC meeting.

Technical Panels

Technical Panels (TP) oversee all MDT research projects. They are formed at the beginning of each project and members are chosen with careful consideration since the success of a project hinges on the Technical Panel and its oversight. **This is your project, not Research's; the project can only deliver the products the technical panel wants if there is appropriate technical panel oversight.** There is a different technical panel for each project, usually consisting of three to ten individuals from both inside and outside of MDT, with knowledge and a vested interest in the research topic, results, and implementation. FHWA and MDT Research Staff are on all technical panels. ~~Also, the Western Transportation Institute (WTI) at MSU-Bozeman may be represented on each panel, as determined by the WTI Research Director.~~ Individuals on panels should adequately represent the breadth of the issue at hand and be balanced with respect to viewpoint and representation. Each panel member is chosen to represent the needs of their respective division, department, organization, and/or constituencies.

Roles

1. Technical Panel Member
2. MDT Research Project Manager
3. Technical Panel Chair

Responsibilities

Note: All tasks must be performed in a timely manner.

1. Technical Panel Members (includes Research staff and panel Chair, who is usually the project champion)
 - a. Determine if others need to participate on the technical panel.
 - b. Oversee project from inception through implementation. Implementation (i.e., products necessary, barriers, mitigation of barriers) should be considered from the very first panel meeting.
 - c. Determine if research need exists by a literature review and completing the research project statement form and, then, the best ~~methodvenue~~ to proceed (cancel project; implement available results; or secure funding from local/MDT, regional, or national research programs).

- d. If determine project is necessary and should be funded at the local/MDT level, develop a scope of work (SOW). Otherwise, work within the appropriate venue to submit research topic. It is critical that a clear, complete, and concise SOW is developed, as the proposal, which is a part of the project contract, is developed from this SOW.
 - i. *Items d. through i. pertain to projects funded at the local level.*
 - e. Determine if RFP should be issued or a governmental agency would be the best entity to conduct research. Review proposal(s) and recommend one for funding. Proposals are based on the SOW.
 - f. Meet with consultant in project kick-off meeting and other meetings, as determined by the project proposal and/or technical panel.
 - g. Carefully review all project products for completeness and accuracy. It is especially critical for technical panel members to review the Task Reports (TR) for each task. The TR will provide detailed information on each task, including what was done, how it was done, and the results. The TR can ~~essentially~~ be combined to form much of the final report.
 - h. Make sure project stays on scope and delivers desired products by reviewing project deliverables (i.e., progress reports, task reports, other interim products, and final report and other final products) and communicating issues with contractor through the MDT Research Project Manager. This is critical for project success.
 - i. Keep supervisor(s), organizations, and/or constituencies informed of all progress and products of the project.
 - j. Make implementation recommendations for MDT.
2. MDT Research Project Manager
- a. Identifies technical panel members and forms technical panels.
 - b. The Research staff on each technical panel serves as the project manager.
 - c. The project manager is the direct liaison between the technical panel and contractor, communicating panel decisions to the contractor.
 - d. Serves as a conduit for all information flowing between the technical panel as a whole or individual technical panel members, and the contractor.
 - e. Ensures project stays within scope and budget, and issues are addressed in a timely fashion.
 - f. Takes meeting notes prior to contracting and for those meetings not attended by the contractor. Contractor takes meeting notes after contract is in place for those meetings contractor attends.
 - g. Manages contractual compliance.
3. Technical Panel Chair
- a. Identifies technical panel members and makes sure they have the time and are willing and able to serve on the technical panel.
 - b. Presents scope of work and business case information to RRC for approval-in-concept as described in the Research Review Committee Section on page 1 (~~approval of the scope is required before efforts are spent in the RFP process and may be recommended in other cases~~).
 - c. Presents business case for project and proposal technical panel recommends for funding to RRC for funding approval.
 - d. Chairs, schedules, and moderates all technical panel meetings.
 - e. Encourages active participation by all panel members.
 - f. Helps the panel reach consensus.

Time Commitment

1. Scope and business case development – 2-4 hours.
2. Proposal review – 1-2 days if an RFP is issued; 2-4 hours if not.
3. Meetings and review of progress and interim products. – varies depending on length of project, about 1-2 hours per month.
4. Final Product Review – 1-2 days

Time commitment varies with each project.

APPENDIX B: ILDOT POOLED FUND APPROVAL FORM



Pooled Fund Approval Form

Part A: Information	
Name of Transportation Pooled Fund Study:	
Solicitation Number: (if NA, use Study #) or Study Number: TPF - (if NA, use Solicitation #)	Annual IDOT Cost: \$ Total IDOT Cost \$ Total Project Cost: \$
Length of Study: Years, Months	(DO NOT COMPLETE THIS BOX, BMPR WILL FILL IN)

Part B: For Bureau Chief	
_____ will be the Bureau's technical contact for this Pooled Fund project.	
<input type="checkbox"/> Yes <input type="checkbox"/> No	This employee will be allowed and encouraged to attend panel meetings in person, as funded by our participation in this pooled fund.
<input type="checkbox"/> Yes <input type="checkbox"/> No	If the employee cannot attend in person, (s)he will attend via conference call or webinar, if provided by the study organizer.
<input type="checkbox"/> Yes <input type="checkbox"/> No	I will review the evaluation (BMPR RC006) annually for this project, and provide feedback on its value to IDOT.
<input type="checkbox"/> Yes <input type="checkbox"/> No	If this study is no longer of value to the Department, my staff will alert the Technical Research Coordinator at the Bureau of Materials and Physical Research, and will not support its ongoing funding.

Part C: For Technical Panel Representative	
<input type="checkbox"/> Yes <input type="checkbox"/> No	I will attend panel meetings in person, as funded by our participation in this pooled fund.
<input type="checkbox"/> Yes <input type="checkbox"/> No	If I cannot attend in person, I will attend via conference call or webinar, if provided.
<input type="checkbox"/> Yes <input type="checkbox"/> No	I will review study documents and deliverables, determining their value to the Department and disseminating information as necessary.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	I will complete an annual evaluation (BMPR RC006) for this project, and provide comprehensive feedback on its value to IDOT.
<input type="checkbox"/> Yes	<input type="checkbox"/> No	If this study is no longer of value to the Department, I will alert the Technical Research Coordinator at the Bureau of Materials and Physical Research, and will not support its ongoing funding.

Part D: IDOT Benefit

Please explain the benefits that IDOT is expected to receive through participation in this study. This section may be completed by the Technical Panel Representative or the Bureau Chief.

Part E: Approval

_____	_____	_____
Bureau Chief Name	Bureau Chief Signature	Date
_____	_____	_____
Technical Contact Name	Technical Contact Signature	Date
_____	_____	_____
BMPR Name	BMPR Signature	Date
_____	_____	_____
DOH Deputy Director Name	DOH Deputy Director Signature	Date

Directions: Solicitation or Study Number and project cost information are available on the Transportation Pooled Fund Website (www.pooledfund.org). Please complete the form and return to the Technical Research Coordinator in the Bureau of Materials and Physical Research – DOT.BMPR.RESEARCH@illinois.gov . If you have any questions, please contact the Technical Research Coordinator via email or at 217-782-3547.

APPENDIX C: ILDOT POOLED FUND ANNUAL EVALUATION FORM



Pooled Fund Study Evaluation

PART A: Study Information			
Technical Contact:		Today's Date:	
Title:		Office:	
Study Number:	Study Title:		
Project Start Date:		Project End Date:	
Lead Agency:		Annual IDOT Contribution: \$ per year (or \$)	

Instructions: Please complete and provide comments as necessary.

PART B: Evaluation of Pooled Fund Study – Technical Contact

A. Is this study making progress toward stated goals?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
B. What knowledge or deliverables has IDOT received from this study?		
C. Do you anticipate that any results of this study will be implemented/ utilized at IDOT?		
<input type="checkbox"/> Yes- Please list deliverables or implementable actions planned or underway.		
<input type="checkbox"/> No- Please describe benefit of participation to IDOT.		

2. Communication

A. How often are meetings held?	<input type="checkbox"/> Never	<input type="checkbox"/> Quarterly	<input type="checkbox"/> Semi-	<input type="checkbox"/> Yearly	<input type="checkbox"/> Biennial
B. Are you able to attend?	<input type="checkbox"/> No	<input type="checkbox"/> Yes			
C. Do you receive Quarterly Reports from this	<input type="checkbox"/> No	<input type="checkbox"/> Yes			
D. Should IDOT continue to contribute to this Pooled Fund Study?					
<input type="checkbox"/> Yes- Please explain					
<input type="checkbox"/> No- Please explain					

PART C: Evaluation of Pooled Fund Study – Bureau Chief

A. What benefits has participation had on your Bureau, staff or on IDOT processes/procedures?

B. Should IDOT continue to contribute to this Pooled Fund Study?

Yes- Please explain

No- Please explain

Technical Contact Signature:

Date:

Bureau Chief Signature:

Date:

Directions: Please return the completed form to the Technical Research Coordinator in the Bureau of Materials and Physical Research – DOT.BMPR.RESEARCH@illinois.gov. If you have any questions, please contact the Technical Research Coordinator via email or at 217-782-3547.

APPENDIX D: ILDOT POOLED FUND CLOSEOUT EVALUATION FORM



Pooled Fund Study Closeout Evaluation

PART A: Study Information	
Technical Contact :	Today's Date:
Title:	Office:
Study Number:	Study Title:
Project Start Date:	Project End Date:
Lead Agency:	Total IDOT Contribution: \$

Instructions: Please complete and provide comments as necessary.

PART B: Closeout Evaluation of Pooled Fund Study- Technical Contact

A. What knowledge or deliverables did IDOT receive from this study?

B. Do you anticipate that any results of this study will be implemented /utilized at IDOT?

Yes- Please list deliverables or implementable actions planned, underway, or completed.

No – Please explain why not.

What value did IDOT receive from participating in this study?

What value did you receive from participating in this study?

PART C: Closeout Evaluation of Pooled Fund Study- Bureau Chief

What benefits did participation have on your Bureau or on IDOT processes/procedures?

Technical Contact Signature:	Date:
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Bureau Chief Signature:	Date:
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Directions: Please return the completed form to the Technical Research Coordinator in the Bureau of Materials and Physical Research – DOT.BMPR.RESEARCH@illinois.gov. If you have any questions, please contact the Technical Research Coordinator via email or at 217-782-3547.

APPENDIX E: NCDOT POOLED FUND REQUEST FORM

NCDOT has Research Funds set aside in the annual Research Work Program for participation in national Pooled Fund studies. This program allows state and federal agencies to pool their resources and pursue projects with a regional or national scope. Technical Advisory Committee nominees should have a direct responsibility in the topic under study and likely will be required to take occasional trips and participate in regular conference calls.

Information on the program can be found at the following website: <http://www.pooledfund.org/Home>

If you wish to have NCDOT participate in a pooled fund, please complete the following form for consideration and submit to Research and Development. Participation is contingent upon available funding. If requests exceed funding, final selection will be made by the Research Executive Committee. If you wish for NCDOT to create and lead a pooled fund, please contact R&D.

Study or Solicitation #:	TPF-5(NNN) or SOL #: NNNN	Annual Cost:		Number of Years:	
Title:					
Sponsoring Agency:					
Reason for Participation and Benefit to NCDOT <i>(box will expand as needed):</i>					

**Proposed Technical
Advisory Committee
(TAC) Member**

Name:

Position:

Unit:

Phone:

Email:

Requested
by:

NCDOT
Business Unit:

NCDOT Management Approval (Director or Division Engineer)

Print or Type Name	Signature	Date
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Research and Development Approval

Neil Mastin, PE		
Print or Type Name	Signature	Date