



***Georgia Department of Transportation
Research Peer Exchange 2010
May 18-20, 2010***

FINAL REPORT

**Prepared by:
Research & Development Branch
Office of Materials & Research**

Introduction

In accordance with 23 Code of Federal Regulations (CFR), Section 420, Subpart B (Research, Development and Technology Transfer Program Management), Georgia DOT (GDOT) Office of Materials & Research hosted a Research Peer Exchange in Forest Park, GA, on May 18-20, 2010 (see Appendix A for agenda). A Peer Exchange is typically hosted by a state DOT, who invites staff from other state DOT's, Federal Highway Administration (FHWA), and possibly universities to discuss ideas for improving the hosting agency's research process. GDOT invited staff from North Carolina DOT, New York State DOT, South Dakota DOT, FHWA-Georgia Division, and Transportation Research Board (TRB). Team members and other attendees are shown in Appendix B.

Objectives

The focus of a Peer Exchange may be general research management or certain parts of the research process. For this Exchange, GDOT chose to focus on "Communications with Research Partners within Georgia DOT," with the following definitions for the focus:

- "Partners *within* GDOT" refers to GDOT entities and employees and, for purposes of this Exchange, does NOT include external entities such as resource agencies and universities.
- The context of "Research" is the entire GDOT research program, including (1) research program development consisting of a) solicitation of research Needs Statements (NS's), and b) screening of research NS's; (2) research project management; (3) implementation and outreach; and (4) external affairs, such as TRB, the National Cooperative Highway Research Program (NCHRP), and the AASHTO Research Advisory Committee.
- The context of "Communications" is engaging internal GDOT partners in the research program towards (1) claiming "ownership" of the research program, (2) active participation therein, and (3) subsequent implementation of research products.

The Exchange was divided into five sessions supporting the focus:

1. Engaging GDOT partners in developing and soliciting new research NS's
2. Engaging GDOT partners in screening new research NS's
3. Engaging GDOT partners in managing individual research projects
4. Engaging GDOT partners in implementation and outreach
5. Finding GDOT partners not currently engaged in the research program

Dr. Moy Biswas, the Peer Exchange Chair, divided the discussion in each session into Accomplishments, Opportunities, and General Observations to give GDOT ideas for improving its communications with research partners within GDOT. The other state DOT, FHWA, and TRB attendees also listed Take-Home Items which they thought might be useful for their own research programs. The Peer Exchange was a success, and all attendees received the benefit of each other's experience and ideas. Attached are the discussion points that emerged for each session and category.

Session 1: Engaging GDOT partners in developing and soliciting new research needs statements

Accomplishments

- Multiple Research Technical Advisory Groups (RTAG's) that provide research ideas
- University Transportation Center seminars that generate research ideas
- Outreach meetings with GDOT offices
- Recognition that improvement is needed for this process

Opportunities

- Attend other GDOT offices' annual meetings or invite staff from other GDOT offices to Research and Development (R&D) meetings
- Involve GDOT research idea submitters in research Needs Statement (NS) development
- Acknowledge GDOT Technical/Implementation (T/I) Managers in presentations and documents
- Expand R&D outreach to GDOT districts and offices via short meetings
- Solicit research ideas within GDOT beyond the RTAG's
- Identify office liaisons within GDOT offices concerning research
- Expand marketing and media (fliers for highlight projects, newsletter, Research Pays Off report)
- Provide "seeds" for research ideas to GDOT offices via other state DOTs' news
- Arrange meetings with construction and maintenance liaison engineers to solicit research ideas
- Consider simplified (conversational) research idea form per North Carolina example

General Observations

- Keep GDOT research current on Transportation Research Information Service (TRIS) website
- Consider how to make Research a more integral part of GDOT culture
- Develop performance measures to document the success of GDOT's research program

Take-Home Items

New York State DOT

- The importance of marketing research in order to generate research ideas
- The importance of the research newsletter to keep research familiar within NYSDOT
- Have librarian track literature search topics and interested program areas for follow up research opportunities
- Confirm timely input of how many NYSDOT research reports are in TRIS

North Carolina DOT

- Attend meetings of customers from technical groups (e.g. pavements, structures)
- Explore Maintenance field research (as per Minnesota)
- Distribute research success stories

South Dakota DOT

- Consider simple newsletter marketing, using TRB's newsletter as an example
- Confirm official liaisons from various offices

TRB

- Encourage TRB standing committees to develop new NS's and post them in TRB's Research Needs Statement database

Session 2: Engaging GDOT partners in screening new research needs statements

Accomplishments

- RTAG review of NS's, including literature reviews
- NS's and subsequent proposals approved by the office head(s) supporting each research project
- RTAG prioritization of NS's, as needed
- Research topics are also screened by offices before NS development
- Research Advisory Committee prioritization of NS's as needed

Opportunities

- Confirm need, urgency, and significance/benefits of research at time of NS development
- Improve acquaintance between R&D staff and GDOT customers
- Engage district offices more in NS development
- Consider evaluation criteria similar to NCHRP's for NS scoring sheet
- Schedule RTAG officer meetings to discuss overall priorities
- Identify opportunities for in-state students (graduate and undergrad) on research projects

General Observations

- Consider RTAG membership rotations (NCDOT: General Office staff are included on research committees ex officio, but field personnel membership on them may rotate)

Take-Home Items

New York State DOT

- Potentially use 1-2 page "Preliminary Proposal" document for off-cycle research projects
- Limit biographical data contents to "related work only" and 5-10 publications/references

South Dakota DOT

- Stay in touch with SDDOT customers
- Conduct university project evaluations

Session 3: Engaging GDOT partners in managing individual research projects

Accomplishments

- Full management of research projects by R&D staff, with guidance from T/I Managers and other technical point(s) of contact
- Good buy-in from GDOT staff for research projects

Opportunities

- Streamline invoice process (e.g. quarterly invoicing instead of monthly)
- Tie payments to deliverables, as applicable
- Develop a research project management database
- Standardize research project management processes
- Identify research project management roles for others in GDOT
- Address research implementation at the project kickoff meeting

General Observations

- Consider potential improvements to invoices' support data

Take-Home Items

South Dakota DOT

- Investigate putting research projects relating to construction on hold until appropriate construction project(s) is ready or identified
- Execute more implementation, training, and papers/presentations after research projects are completed (SDDOT already doing to some extent)

Session 4: Engaging GDOT partners in implementation and outreach

Accomplishments

- Implementation is done as much as possible under the research project in addition to after it
- An implementation plan is required in project proposals
- Research "Road Shows" are being conducted
- SharePoint site is active
- Semiannual reports from T/I Managers to RTAG's have been initiated
- New pavement techniques have been documented (e.g. micromilling, Warm Mix Asphalt)

Opportunities

- Continue and expand research projects for documentation of new technologies via “Special Research Study” format
- Make implementation plan a contract deliverable and address at project kickoff meeting
- Include funding line item for special implementation, as necessary, in a master contract
- Hold Research Road Shows at district offices
- Consider Georgia implementation projects based on national or state reports
- Communicate project and program successes better and performance measures for both in simple format

Take-Home Items

New York State DOT

- Make better use of R&D website
- Continue using Completed Research Project forms

North Carolina DOT

- Make research presentations at meetings of division engineers
- Distribute “Research Pays Off” report
- Investigate using SharePoint or similar software
- Renew research “Show and Tell” presentations
- Make presentations at meetings of NCDOT groups

South Dakota DOT

- Investigate use of SharePoint or similar software
- Investigate forms for implementation check-off
- Communicate research project successes to entire SDDOT

Session 5: Finding GDOT partners not currently engaged in the research program

Accomplishments

- RTAG SharePoint is currently generating automatic notifications
- Outreach meetings to other GDOT offices regarding research are underway

Opportunities

- Develop a Research e-mailbox for research ideas from entire Department
- Add “Research News” to the RTAG SharePoint
- Expand distribution of outreach media (e.g. *TR News* blurbs, TRB e-newsletter, completed project fliers); let offices pick which e-newsletter topics they want
- Improve contact with districts and field personnel to identify new partners
- Consider Research Road Shows with possible new GDOT research partners
- Proactively identify and list new customers within GDOT

Take-Home Items

New York State DOT

- Maintain Research newsletter in some form
- Review list of current “Partners” and determine who is missing

North Carolina DOT

- Consider blogs, Wikis, etc. to engage the younger generation
- Use posters and small cards to publicize research projects
- Continue to send NCHRP reports to prospective customers
- Distribute electronic research newsletter (consider that of Daniel Burrus, futurist, as an example)

South Dakota DOT

- Meet more SDDOT staff
- Work with SDDOT Maintenance to identify research projects

SECTION 6: Conclusions

The Peer Exchange met its objectives in providing input to GDOT to improve its research process, especially its communications with research partners within GDOT. The Exchange was divided into five sessions supporting this focus on internal communications:

- a. Engaging GDOT partners in developing and soliciting new research NS's
- b. Engaging GDOT partners in screening new research NS's
- c. Engaging GDOT partners in managing individual research projects
- d. Engaging GDOT partners in implementation and outreach
- e. Finding GDOT partners not currently engaged in the research program.

In each session, GDOT demonstrated its accomplishments in communicating with research partners within GDOT, i.e. engaging them in the research program towards (1) claiming "ownership" of it, (2) active participation in it, and (3) subsequent implementation of research products. In each of the sessions GDOT also received input from other state DOT's, FHWA, and TRB on opportunities to improve this communication. Finally, the other state DOT, FHWA, and TRB attendees listed Take-Home Items which they thought might be useful for their own research programs.

A summary of GDOT's opportunities for improvement, by session topic, is provided in the following paragraphs.

1. Engaging GDOT partners in developing and soliciting new research need statements (NS's)

While GDOT currently obtains research ideas from Research Technical Advisory Groups, University Transportation Center seminars, and outreach meetings with GDOT offices, it recognizes that improvement is needed for this process. R&D outreach to GDOT districts and offices could be expanded via short meetings; ideas could be solicited with GDOT beyond the RTAG's; liaisons could be identified within GDOT offices concerning research; and marketing and media (e.g. fliers for highlight projects, newsletter, and Research Pays Off report) could be expanded.

2. Engaging GDOT partners in screening new research needs statements

Research topics are currently screened by offices before NS development, approved by office heads, then reviewed and prioritized (as needed) by RTAG's. The Research Advisory Committee may also, as needed, prioritize NS's. It is important that the need, urgency, and significance/benefits of research be confirmed at the time of NS development. RTAG officer meetings could be scheduled to discuss overall priorities, and district offices might be engaged more in NS development.

3. Engaging GDOT partners in managing individual research projects

R&D staff provide full management of research projects, with guidance from T/I Managers and other technical point(s) of contact. Overall buy-in from GDOT staff for research projects is good. The project invoice process might be streamlined (e.g. quarterly invoicing instead of monthly); payments might be tied to deliverables, as applicable; research project management roles for others in GDOT might be identified; and research implementation could be addressed at the project kickoff meeting.

4. Engaging GDOT partners in implementation and outreach

Implementation is done as much as possible under the research project as well as after it, and an implementation plan is required in project proposals. T/I Managers are expected to provide implementation updates to the RTAG's semiannually. Furthermore, an interactive RTAG website is active, and Research "Road Shows" are being conducted. GDOT should consider (1) continuing and expanding research to document new technologies via the "Special Research Study" format; (2) making the implementation plan a contract deliverable and addressing it at the project kickoff meeting; (3) holding Research Road Shows at district offices; and (4) communicating project and program successes better and performance measures for both in a simple format.

5. Finding GDOT partners not currently engaged in the research program

Research outreach meetings to other GDOT offices are underway, plus an interactive RTAG website is currently generating automatic notifications to anyone who requests them. Possible ways to find GDOT partners not currently engaged in the research program include: (1) a Research e-mailbox for research ideas from the entire Department; (2) improved contact with districts and field personnel to identify new partners, e.g. through Road Shows; and (3) proactively identifying and listing new customers within GDOT.

APPENDIX A: AGENDA

**GEORGIA DOT RESEARCH PEER EXCHANGE 2010
“Communications with Research Partners within Georgia DOT”**

Tuesday, May 18	
1:30 pm - 2:00 pm	Introductions
2:00 pm - 3:30 pm	State Program Presentations
3:30 pm – 3:45 pm	Break
3:45 pm – 5:30 pm	Session 1: Engaging GDOT partners in developing and soliciting new research needs statements
5:30 pm	Group Dinner (transportation provided)
Wednesday, May 19	
8:00 am - 9:45 am	Session 2: Engaging GDOT partners in screening new research needs statements
9:45 am - 10:00 am	Break
10:00 am - 12:00 pm	Session 3: Engaging GDOT partners in managing individual research projects
12:00 pm - 1:00 pm	Lunch (Catered)
1:00 pm - 2:45 pm	Session 4: Engaging GDOT partners in implementation and outreach
2:45 pm - 3:00 pm	Break
3:00 pm - 5:00 pm	Session 5: Finding GDOT partners not currently engaged in the research program
5:00 pm	Dinner (on your own)
Thursday, May 20	
8:00 am - 10:00 am	Recap of Peer Exchange findings by session
10:00 am - 10:15 am	Break
10:15 am - 12:00 pm	Discussion of Take-Home Items; open discussion; wrap-up
12:00 pm	Adjourn

APPENDIX B: CONTACTS LIST

Team Members

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Other Attendees

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