Florida Department of Transportation

Research Peer Exchange

Final Report

Prepared and submitted in accordance with 23 CFR 420.207(6)(b)

Contents

Introduction

23 CFR Part 420, Subpart B contains four provisions that each State must meet to be eligible for FHWA planning and research funds for its RD&T activities. They include the following:

- Implement a program of RD&T activities for planning, design, construction, and maintenance of highways and public and intermodal transportation systems.

- Develop, establish, and implement a management process that identifies and implements RD&T activities expected to address high priority transportation issues.

- Agree to conduct peer exchanges that consider for improvement the State's RD&T management process and be willing to participate in the Peer Exchanges held by other States' programs.

- Maintain documentation of its management process.

The Florida Department of Transportation held its second Peer Exchange February 3 – 6, 2002. Members of this Peer Exchange team included:

Dr. Haitham Al-Deek, UCF	Dr. Kwame Arhin, FHWA
Dr. Paul Cosentino, FIT	Ms. Sandra Goldstein, UF
Mr. Richard Kessler, FDOT	Mr. Peter Lai, FDOT
Mr. Win Lindeman, FDOT	Dr. Michael McVay, UF
Dr. Ed Mierzejewski, USF	Ms. Priscilla Pope, USF

Other participants observing the Exchange included:

Mr. Jack Winningham, Facilitator, UF	Dr. Janet Degner, UF
Mr. Gib Peaslee, UF	Dr. Darryll Dockstader, FDOT
Mr. Richard Long, FDOT	Mr. John Nicholson, FDOT
Ms. Sandra Wolfe, FDOT	

For the most part, Peer Exchanges have been conducted between State DOT research offices. The FDOT Research Center has been fortunate enough to participate on Peer Exchange teams in Alabama, Connecticut, Mississippi, North Carolina, and Tennessee. Participants in FDOT's 1998 Peer Exchange included representatives from the California, Minnesota, Pennsylvania, and Virginia DOTs, as well as representatives from the John Volpe National Transportation Systems Center and the Institute for Transportation Research at North Carolina State University. These exchanges were excellent opportunities to understand how other States manage their research programs, and, in the truest sense of a Peer Exchange, all participants identified ways to improve their individual programs.

It is now time for a second round of Peer Exchanges, which has occasioned no small amount of discussion among State DOT directors of research regarding the frequency of Peer Exchanges and the manner in which they should be conducted. While everyone agrees that these exchanges are of benefit, some feel that the three-year intervals between exchanges are too short, and that three years provides barely enough time to institute changes resulting from their previous exchange. Others question the benefit of dedicating resources to hosting frequent exchanges, particularly in light of other, more pressing, responsibilities. Florida views the peer exchange process as a tool that will assist it in achieving performance excellence, if the approach for planning the exchange considers *current program needs.*

The FDOT Research Center recognizes the benefits of meeting with other States and of building upon lessons learned; however, in preparing for this exchange, we felt that the best opportunity for program improvement was to be achieved by meeting with our customers. Our procedures, processes, and manner of conducting business affect project managers (PMs), principal investigators (PIs), and many persons in the universities' Divisions of Sponsored Research (DSR) offices. While some of what we do is required or mandated by others, we feel that there is still opportunity for improvement. We believe that it is crucial to the success of the exchanges that they be adaptable to individual program needs, while maintaining their general purpose.

As a research center (RC) that principally contracts research activities with the State's universities, we felt that an exchange that called together our customers/partners (PIs, PMs, and DSRs) would be an appropriate follow-up to our previous exchange. That is perhaps with one of Stephen Covey's seven habits of highly effective people in mind: "Seek first to understand, then to be understood."

Thus, the expressed objectives of this Peer Exchange process included the following:

1. Our Program Management Process: Can it be improved?

2. Marketing Research Results: Are we doing enough?

   a. What are the responsibilities of the PM and the PI?
   b. What is an appropriate level of effort?
   c. What are possible means for producing and distributing media?
   d. Who is our current audience? Who is our potential audience?

3. Implementation of Research Findings: Are we?

    a. What constitutes implementation?
    b. How should implementation be tracked?
    c. Are implementation measures and standards variable?
    d. How can the RC overcome current obstacles to implementation? (turnover, lack of project champion and office involvement, lack of formal feedback, limited staff)

4. Identifying the Value of Research: What makes a good project?

    a. How effective is current practice?
    b. What are the benefits of research results? (degree and significance of implementation)
    c. How may benefits be calculated?

5. Evaluating Programs and Project Performance: Where should the bar be placed?

    a. What is the potential effectiveness of available PI evaluation methods?
    b. What are potential PM evaluation methods?
    c. How might the concept of project evaluation be utilized as an alternative to or expansion of PI / PM evaluation? (finished on time, accepted findings, findings implemented, consensus on value of results, etc.)
    d. What indicators might be used to measure program performance?

PART I

FDOT Research Center staff chose specific issues to discuss at this Peer Exchange. Additionally, the team had the opportunity to expand these topics during the course of the meeting. Discussions were often lively, and members of the team were able to contribute their thoughts, feelings, and experiences. The following summarizes the group's discussion on each topic and lists discussion outcomes.

FDOT Research Program Management Process: Can it be improved?

ISSUE: Principal Investigator Reporting, Needs and Practices

- Management presentation indicated issues with receiving progress and final reports in a timely manner (examples given) — participants suggested that the culture of the University setting may be an obstacle to managing PIs.
- Decrease workload and streamline process by sending electronic report as opposed to hard copies
    - ✓ Website (PDF Format)
    - ✓ E-Mail
    - ✓ Develop E-mail distribution method to remove addressees from emails.
    - ✓ Creates cost savings
    - ✓ Create reporting format that is consistent for all PMs and PIs
    - ✓ Clarify which delivery method (digital or paper format) is most appropriate for different types of reports.
    - ✓ Change Master Contract to include format.
    - ✓ Make sure color is not lost when sending reports electronically. The meaning may be changed if a graphic is not read as intended.
- Check with FHWA in Washington about the current policy that requires 30 copies be sent to FDOT Research Center upon completion of the project—Is this requirement still in effect and do the copies need to be in hard copy format?
- Use available library systems (FDOT Research Center and T² Center) to check out materials instead of requesting copies.
- Length of report should properly reflect scope of project. The report should have the data needed to support work for the size of the contract size.
- Principal Investigator reporting:
    - ✓ Suggestion of using the current NCHRP progress schedule was not supported by group.
    - ✓ Graph the projected timeline against the actual timeline.
    - ✓ PMs use graph to determine payment (% of payment related to % of task completed to date).
- Inform DSR personnel when the delay of progress and final reports occurs since delays directly impact the reimbursement of invoices submitted to the FDOT Research Center.
- Conduct PM meetings regularly to discuss the following:
    - ✓ Late reports
    - ✓ Projects that encompass varying areas of expertise to facilitate knowledge sharing for the project (interdisciplinary partnerships)
- Need to have a better mechanism in place to evaluate if the time frame contemplated for projects is reasonable when proposals are submitted.

Discussion Outcomes
- It was decided that the PMs could formulate what they would like as a report from their prospective PIs. It was suggested that the appropriate graphic report would be the percent of completion for each task as it relates to the start date of the project.
- FDOT Research Center will start publishing reports on Website with PIs name and their University affiliations. This will still occur even if the project is not being completed as scheduled.
- Need to develop a "report card" type database that would indicate PIs who were consistently late or weren't submitting progress and final reports. This would assist FDOT Research Center in evaluainge future funding efforts by identifying poor performers.

ISSUE: New Research Project Approval Process

- Circulate flow chart of the approval process to all PIs, PMs and other constituents of the FDOT Research Center.
- Enhance communication of approval process to all those listed above.
- Provide list of FDOT Functional Areas and contacts.

Discussion Outcomes
- Flowchart can be distributed
- Communication enhancements will be explored.
- List of FDOT Functional Areas and contacts is already on the FDOT Research Center Website. E-mail and mailing addresses will be added.

ISSUE: FDOT Research Center Database

- Within the database a new field has been added—Impact to Business.
- Suggested PIs supply benefit because they can best demonstrate results.
- Link to TRIS is on the FDOT Research Center Website.
- Add drop down category in the Impact to Practice field indicating Functional Area that is impacted and then click to read detail.
- Need to be able to capture in the database the number of reports that are requested.
- Would be helpful to know how many No Cost Time Extensions (NCTEs) have been approved—give report to PMs and PIs as well as to directors of institutions for management purposes.
- Add date to report (RC Monthly Report).
- Have access to database to view on-line reports listed by institution.

Discussion Outcomes
- Date can be added to RC Monthly Report
- Reports can currently be obtained from database built on individual requests; look at public access (adding to Website, etc.).
- Will add requirement in Master Contract requesting PIs to supply Impact to Business.

ISSUE: Graduate Student Funding
- Knowledge of available funding for graduate students is needed by Feb/Mar at the latest. That is, the list of approved projects should be provided by this time to that researchers will be better able to recruit graduate assistants.

- Need to be able to pay graduate student salaries and tuition. (Only one other known state agency limits funding to student salaries. The others pay both salaries and tuition.)
- Students currently require at least $25,000/year.

  Discussion Outcomes
  - Speak to management about changing graduate student funding policy.
  - Explore the possibility of changing project approval schedule to accommodate need for PIs to know the available funding for graduate students in February/March.

ISSUE: Master Contracts

- Need better instructions for the following:
  - ✓ Equipment purchases
  - ✓ Number of reports required
  - ✓ Set-up sheets
- Need more information on reporting requirements from PMs and PIs

  Discussion Outcomes
  - Research Center will develop instruction booklets for PIs and PMs that would be attached to the Master Contracts and Research Project Work Orders.

ISSUE: Equipment

- All equipment purchased with FDOT Research Center funds will be returned to FDOT at the end of the contract period.
- All computers will now be purchased by FDOT and sent directly to the PI.
- Computers needed for FDOT Research Center projects should be purchased through FDOT's PC vendor due to service agreement and state contract requirements for FDOT.
- Cost analysis of lease vs. purchase options should be done whenever equipment is needed.

  Discussion Outcomes
  - All equipment purchased with FDOT Research Center funds will be decaled using the FDOT decal system and returned to FDOT upon completion of the project and/or contract.

MARKETING RESEARCH RESULTS: ARE WE DOING ENOUGH?

- Who is the most important person to target for marketing project results/FDOT Research Center (final) summary reports?

    - ✓ The purpose of the Summary Final Reports (SFRs) is to publish findings, conclusions and benefits succinctly.
    - ✓ Need SFR to "whet" the audience's appetite.
    - ✓ SFR needs to be understood by non-technical audience.
    - ✓ Consider developing both technical report and laymen report in terms of marketing and understanding (examples given).
    - ✓ Eliminate current format and only use findings and benefits.
    - ✓ Modify technical data to use for media purposes to show improvements (bridge maintenance and design).
    - ✓ Formulate how benefit impacted FDOT after implementation has occurred.
    - ✓ Evaluate implementation based on benefit and use the evaluation to aid legislative decision-making.
    - ✓ Create e-mail list, not personal groups, for final report distribution.

ISSUE: Website – MyFlorida.com

- PDF is acceptable if the file is 2 MB or less.
- Word files are also acceptable.
- Booklets (instruction) should be placed on Website.
- What can be posted on the Website is limited by *MyFlorida* State Technical Office (STO).
    - ✓ They require simplicity and directness.
    - ✓ Can we change some of the requirements? Are they flexible?
    - ✓ Should we put contracts on the Website?
        - ✓ Add NCTEs and Amendments.
        - ✓ Dollar amount.
        - ✓ Boilerplate contract document.
    - ✓ PI and PM would have access to contract document.
- Need to develop Website to capture all audiences.
- Break down current research by university/institution.
- Decided not to post performance/timeline.
- Add capability to sort by PI.
- Add TRIS link at this point on Website.
- Go to NTL to get copy of final report from TRIS.
- Can call FDOT office to search for reports.
- Contract to capture old reports? Put in PDF and place on Web/CD-ROM.
- Using TRIS as a start to search is a good solution.
- Develop means to search contracts o the website.
- Investigate search engine capabilities (per STO).
- "Dialog" software is another search option; must purchase subscription.
- Add links to all search engines on Website.
- Currently have "locking" feature of PDF in reports to prevent plagiarism.

Discussion Outcomes

- Need a technical and non-technical summary report.
- Consider contracting with University(s) Public Information Office to write press releases.
- Currently have two contracts looking at implementation.
- Need to know benefit/cost even if additional staff/contract is required.
- Market to community, locals and researchers.
- Contract with PI offices in each institution to assure final reports include technology transfer/ implementation summary.
- Develop public and legislative awareness of the benefit from FDOT research for state and local communities.
- Marketing efforts need to be collective effort.
- Panel (volunteers) to review projects that would be good marketing and organized approach to select them.
    - ✓ Target projects.
    - ✓ Go back to customer and inform them of targets.
    - ✓ Fund special effort on those projects for marketing.

IMPLEMENTATION OF RESEARCH FINDINGS: ARE WE?

- Decide or categorize what type of benefit each project provides.
- Evaluate as a portfolio instead of by Functional Areas.
- Did a change occur? (1) Evaluate proposal in light of where research will create change (2) PM should be looking at this aspect of research.
- PM managing PI develops group to review, i.e. GRIP meeting (the Geotech Functional Area group's PMs, PIs, etc.).
- Value in developing annual research meeting to present research implementation.
- Research Center needs to meet with Functional Areas to communicate implemented research results.
- PMs should write spec, write a procedure, or implement results.
- Need to know about the benefit to or impact to practice.
- Document intertwining of project implementation – a building-block process.
- Provide implementation success stories for legislature and management.
- Need a "show and tell" sampling of two projects within Functional Areas.

Discussion Outcomes

- "Impact to Business" field in database should be renamed "Impact to Practice."
- Plans to gather "Impact to Practice" information should be expedited to collect information both point forward and for historic projects.
- Consider adding requirement in Master Contract requesting PIs to supply "Impact to Practice" information.

Identifying the Value of Research: What makes a good project?

- Data are important in terms of apportioning funding at the Federal level.
- Current process is good. PM model is focused and has clearly defined needs in terms of the types of research that needs to be contracted.
- How are PMs chosen — by manager in area.
- Functional Area contacts are best at directing a person through FDOT or to the appropriate PM.
- Functional Area has to establish priorities.
- Need data to support next project.
  - ✓ Ex.: Collect data on animals crossing road to support possible animal crossing structure
- Short-term vs. long-term impact of research and where does it fit in FDOT strategic plan
- Consider sustainability of research.
- Continuity of PM and documentation of research
- PMs lacking time to handle issues are a problem — staff reduction of FDOT has/will continue to create problems.
- Reduce number of projects and increase the funding amounts so PMs have fewer projects to manage.
- Consider NCHRP project evaluation (Lai Approach).
- Personality conflicts cause problems among some PMs and PIs.
- Still need to have PM in charge to reduce risk of funding unnecessary projects. Having an annual meeting would help.
  - ✓ PM needs to be able to travel using research funds.
  - ✓ One PM managing PI; backup PM or group panel members should filter concerns through PM
  - ✓ PM Training
- Have a primary PM and Co-PM as backup.

  Discussion Outcomes
  - Resources are limited, thus creating a problem.
  - Input from team is good.
  - Look at Peter Lai's model - it works (team approach).
  - PM and co-PM on each project.
  - Consider current and potential PM evaluation methods.
  - Have an annual PM training session by Research Center to explain process for RFP, Scope of Service, contract requirements, invoicing, PI evaluations, etc.

Evaluating Program and Project Performance: Where should the bar be placed?

ISSUE: Performance Procedures

- Eliminate "grade" on PI performance forms.
- Change to deficiency form only to save time; no need to evaluate good performance—will save time.
- Enhances continuity.
- Need pass/fail only — eliminate numeric grade.
- Criteria need to be developed to justify reason(s) for failure — can be done on interim reports — does not have to wait to end.
- Is PM the only one allowed to do deficiency report?

- Need to send deficiency report to PIs supervisor.
- FDOT should distribute surveys to PIs to evaluate PMs at end of project.
- Do not depend only on interim project reports as an evaluation of project performance.
- Add pass/fail grade by project in FDOT Research Center database.
- PM has permission to send deficiency report to FDOT Research Center at any time.
- After receiving a deficiency report, FDOT Research Center will consider corrective action and maintain communication with PM. Second offense goes to PIs supervisor.
- FDOT office can initiate deficiency report after consulting with PM.
- Scope should be received within six months after project is approved for funding.
- Need pass/fail performance criteria.

Discussion Outcomes
- Need to change final grade to pass/fail instead of number value.

ISSUE: Research Program Performance

- Geotech feels the funded research has contributed to their ranking as a top Geotech program in the country.
- An open system allowing every PI to participate is desirable .
- First in nation to implement research findings in certain areas.
- Program evaluation should be tied to program goals.
- Need system in place to track where graduate students educated using FDOT funds go after graduation to demonstrate FDOT support in education.
- How many presentations are made and which are supported by research? National recognition obtained and impact is recognized.
- Number of contracts granted vs. number of reports received.
- Amount of funds received vs. amount encumbered.
- Number of final products that have been implemented (Impact to Practice).
- Trend indicators (i.e. NCTE).
- Include highlights as part of program evaluation.
- Track national reputation of FDOT sponsored researchers.
- Is Return on Investment greater than research funding granted?

Discussion Outcomes
- Consider having a Research Advisory Board.
- Explore all indicators to measure performance.

PART II

While the ownership of a peer exchange rests with the host state, and the primary objective of the peer team is to satisfy the expectations and concerns raised by the host state, an equally important intent of the exchange is for all of the participants to formulate ideas that can be discussed and applied to their respective agencies. All peer team members were asked whether, as a result of this exchange, any ideas or issues arose that they felt could be applied to their organization.

Dr. Haitham Al-Deek, Director
Transportation Systems Institute
Department of Civil and
Environmental Engineering
University of Central Florida
Orlando, FL 32816
407 823 2988 / fax 407 823 3315
haldeek@mail.ucf.edu

- I have an excellent impression about the peer exchange. I would like to participate in this again and again in future years. I am very impressed with the amount of effort put in the preparation and organization of this exchange. Kudos to UF T².
- I will take back many things to my work place. I will explain to my colleagues and research team the following:
  - ✓ The importance of completing research projects on time and turning in final reports for every project
  - ✓ Research is a delicate issue and performance of principal investigators and project managers reflects on the Research Center's performance and vice versa.
  - ✓ The importance of project implementation
  - ✓ All researchers need to be more active in marketing their research.
  - ✓ As research dollars are getting scarce, there is even more need to emphasize performance
  - ✓ The peer exchange process has been applied in review of national projects, peer reviewed journals, strategic planning of large organizations and academic institutions, etc.

- I have an excellent impression of this peer exchange. However, it will be helpful if the research program goals are aligned with FDOT's strategic planning goals and objectives.
- This is an effective way for members to discuss the strengths, weaknesses and opportunities to improve an already good program.
- I will use the Research Center and TRIS Website to find on-going and completed research reports.
- The peer exchange process can be applied in different organizations to prioritize issues and identify performance measures to evaluate the success or failure of the ongoing programs.

Dr. Kwame Arhin
Federal Highway Administration
227 N. Bronough Street, Ste 2015
Tallahassee, FL 32301
850 942 9650x3010 / fax 850 942 9691
kwame.arhin@fhwa.dot.gov

- The head of research office (Richard Long) should conduct a short (1/2 day) seminar every year or two for all new PIs in Florida. This meeting could be held in Orlando or Tallahassee. Topics could be: available money in budgets, research process, and evaluation of research. Hand out typical: proposals, contracts, progress reports, invoices, final reports, technology transfer needs (marketing and implementation).
- At the peer exchange a very complete understanding of the research office process was given. It made me much more aware of the importance of properly marketing, implementing and "selling" the research to various people, e.g., legislature and public.
- I will take back the understanding of the critical nature of scheduling the research, be able to explain the FDOT process to other potential PIs and improve my managing process.

DR. PAUL COSENTINO
Civil Engineering Department
Florida Institute of Technology
150 W. University Blvd.
Melbourne, FL 32901-6975
321 674 7555 / FAX 321 674 7565
cosentin@fit.edu

- It would be helpful if all projects went through the Research Center so we would not have to negotiate contracts, but used a uniform document. It would also probably be helpful for the Center to have required, ongoing meetings with PMs. Also, the Center probably needs some mechanism to ensure that PMs that do not provide feed-back as requested or work according to established operating procedures for grants and contracts have some consequences for such actions.

- This exchange was great. I will take back a better understanding of how the Center operates and how the DOT functions. I have taken back an appreciation of some of the contractual and business issues and will share these with DSR staff.

- It seems that the Peer Exchange process would be really useful for all types of sponsor/recipient relationships. It is an excellent way to determine best practices and nurture collaborative and collegial cooperation that benefit agency, University, and the State.

MS. SANDRA GOLDSTEIN
Office of Sponsored Research
University of Florida
219 Grinter Hall
Gainesville, FL 32611
352 392 1582 / FAX 352 846 1839
sandyg@ufl.edu

MR. RICK KESSLER
State Materials Office
Florida Department of Transportation
2006 NE Waldo Road
Gainesville, FL 32608

352 337 3205 / FAX 352 334 1648
Richard.Kessler@dot.state.fl.us

- The exchange was very helpful to me because I learned the problems with the Research Program and how my actions as a PM affect those problems. The PM is responsible for the overall efficiency and the quality of the project. This exchange was extremely helpful in interacting with Divisions of Sponsored Research (DSRs) and PIs to see their perspective of the research program. The exchange also provided me with information of various aspects of the Research Office, which I was unaware. The database and Website information were the important new items.
- The peer exchange group under this format should be held annually. The gathering of all parties, PIs, PMs and DSRs and Research Office personnel, assembles all entities involved in the research program at one time. All views and concerns of each party is communicated and understood by all. This gathering will help improve the overall performance of the program.
- The item I will take back to the workplace is the importance of the PM to delineate in detail the implementation of research completed in order for the Research Center to document success. The PI and PM at the end of the project must describe both technically and in layman's terms the implementation success of the project.
- The peer exchange process should be applied in the individual FDOT functional groups. The PIs and PMs at least should meet together and exchange ideas and concerns about their particular area of interest. Representation of the Research Center should also be in attendance. A peer exchange of all Universities participating in the Research Program would also be helpful. The university PIs and DSRs along with the Research Office personnel could exchange ideas and concerns.

- My impression is that this has been a wonderful opportunity to interact with PIs, FDOT staff, Project Management and colleagues to exchange information in a very proactive way. It has provided me an awareness of DOT's research perspective, its processes and programs.
- I will take back the appreciation I've gained for the dedication and commitment of the FDOT Research staff to its research mission. It also helped to identify "pitfalls" in the research processes and insight into ways for improving the systems.
- I can use the peer exchange applications in my workplace. It is an excellent venue for developing policy, conducting program evaluation and exchanging knowledge.

MS. PRISCILLA POPE
Office of Sponsored Research
University of South Florida
4202 East Fowler Ave., FAO126
Tampa, FL 33620
813 974 5555 / FAX 813 974 4962
ppope@research.usf.edu

- I feel that by gathering members of the DSR, PI, PM, FHWA and Research Center personnel, exchange of ideas and concerns is effective in areas of management of research projects such as time schedules, project letting time and procedures and PM review and project management methods.
- Brainstorming among DSR, PI, PM and Research Center personnel is the most effective way to find solutions to problems for the Research Projects such as no cost extensions, return of FDOT equipment and delay/without submission of final reports.
- Uses for the peer exchange application include documenting all the applications resulting from research, which has not been done in the past. Although the geotechnical group has successfully done so through the years, from the development of the Pile Foundation analytical program based on database on pile load test, pile group efficiently for laterally loaded pile group and evolved to the FLPIER, etc., no documentation has ever been done.
- Presently we are using similar process for the FDOT/GMEC (FDOT vs. Consultant) meeting to discuss how to resolve problems in a more effective way. Benefit from the Peer Exchange Process experience will definitely help for the FDOT/GMEC.
- The same philosophy will help to evaluate other problems related to design and/or construction projects.

Mr. Peter Lai
Structures Design Office, MS 33
Florida Department of Transportation
605 Suwannee Street
Tallahassee, FL 32399-0450
850 414 4306 / fax 850 488 6352
peter.lai@dot.state.fl.us

- Two words can be used to describe my impression of the exchange. The first would be *unique*, since I have never participated in an effort quite like this. A second word would be *worthwhile*, both in terms of time spent and knowledge gained. The format afforded plenty of time for interaction without any significant delays or dead periods. There was ample time for informal networking and opportunities for individual input.
- Benefits that I can take back and share include information on requirements that I (and my co-workers) may not have known, such as technical report pages, master contract requirements and other roles of the Project Manager. My knowledge of the many functions handled by the Research Center was enhanced, especially in the area of reports available.
- There is a possibility that this process could be applied to such areas as: How does a state highway agency process an environmental document or a similar program, especially ones that involve repetitive processes.
- The peer exchange process could be used to gather information similar to the way an NCHRP Synthesis of Practice does, only a whole lot faster!

Mr. Win Lindeman
Environmental Management Office, MS 37
Florida Department of Transportation
605 Suwannee Street
Tallahassee, FL 32399-0450
850 488 2914 / fax 850 922 7217
win.lindeman@dot.state.fl.us

- My impressions of the Peer Exchange were excellent. As a PI I learned a number of facts I didn't know after working with the FDOT for sixteen years. I thought the agenda and the short presentation at the beginning of each topic were very conducive to an exchange of ideas. I would recommend that a form of the exchange be given to all perspective/current researchers for the FDOT.
- I plan to share a number of discussions with my colleagues: Relationship of PM and PI in developing a good scope of work with clearly defined deliverables (i.e., tasks), progress reports should identify tasks that have been completed.
- I would like to have a peer exchange with other members who contribute or are impacted by the research. Examples of the latter are graduate students, consultants and contractors.

DR. MICHAEL MCVAY
Department of Civil & Coastal Engineering
University of Florida
204 Reed, P. O. Box 116580

Gainesville, FL 32611-6580
352 392 8697 / FAX 352 392 3394
mmcva@ce.ufl.edu

- There is no doubt that participating in this Peer Exchange has been the highest and best use of my time for these days. I believe that I have had a good understanding of the operations of the FDOT Research Center; however, I have learned a great deal more and now have a better understanding.
- Although I have always held the Research Center staff in high regard, this Peer Exchange has reemphasized the level of excellence. I've also benefited from the exchange with researchers in subject areas other than my own. It has broadened my understanding of transportation research.
- I will be conducting a detailed briefing with the staff at CUTR so that all researchers can benefit from my participation. I've learned more detail about the project selection process.
- I've become aware of aspects of FDOT's Master Agreement with the University of which we need to pay more attention, I've had reinforced to me the importance of schedule adherence, I've learned more about the process used by FDOT to monitor project performance and I've become more knowledgeable about the Research Center Website.
- I will definitely be advising researchers about plans to identify deficient projects and corrective actions. I've gained an even stronger understanding of the importance of demonstrating the value of research.
- All of the above-mentioned items are things I will take back to share.
- I'll be reflecting on how we might conduct a similar Peer Exchange effort within our own organization.

DR. EDWARD MIERZEJEWSKI
Center for Urban Transportation Research
University of South Florida
4202 East Fowler Ave., CUT 100

Tampa, FL 33620-5375
813 974 3120 /FAX 813 974 5168
mierzeje@cutr.usf.edu

FDOT Research Center
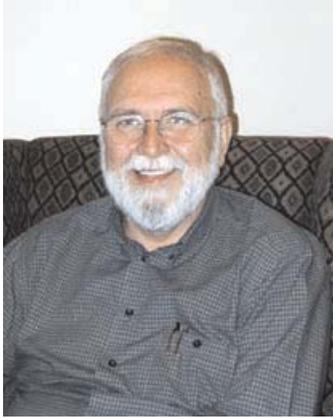
Mr. Richard C. Long, Director
Florida Department of Transportation
Research Center
605 Suwannee Street, MS 30
Tallahassee, FL 32309-0450
850 414 4617 / fax 850 410 5425
RichardC.Long@dot.state.fl.us

Mr. John Nicholson, Associate Director
Florida Department of Transportation
Research Center
605 Suwannee Street, MS 30
Tallahassee, FL 32309-0450
850 414 4616 / fax 850 410 5425
John.Nicholson@dot.state.fl.us

Dr. Darryll Dockstader,
Technology Transfer Manager
Florida Department of Transportation
Research Center
605 Suwannee Street, MS 30
Tallahassee, FL 32309-0450
850 414 4613 / fax 850 410 5425
Darryll.Dockstader@dot.state.fl.us

Ms. Sandra B. Wolfe,
Research Associate
Florida Department of Transportation
Research Center
605 Suwannee Street, MS 30
Tallahassee, FL 32309-0450
850 414 4614 / fax 850 410 5425
Sandra.Wolfe@dot.state.fl.us

PART III

The FDOT Research Center is indebted to all of the Peer Exchange team members. Their efforts to satisfy our expectations were remarkable. We only hope that the process was as rewarding for them as it was for us.

A known fact going into the peer exchange process is that while the objectives to operate a healthy, viable, meaningful research program is the same for each DOT, individual state laws, rules and procedures cannot be used for a "best practices" approach to management. Also, each research manager must work within priorities that may be unique to their department. The true value of the Peer Exchange is that knowledge has been shared and even if substantive changes do not occur exactly as in another state, the knowledge and awareness gained through the exchange will permeate each participant's decision-making process. The FDOT Research Center staff has gained a great deal through this experience. Identifiable areas for attention include:

- Review work-in-progress legal implications (240.241 F.S.)(Sunshine Law).
- Provide notification to university administration of all projects that are six months or more beyond scheduled end date.
- Consider alternative formats for project summaries to accommodate different audiences.
- Add to FDOT Research Center website additional search engine links with heading/keyword categories.
- Create booklets that outline PM/PI responsibilities and post to Website.
- Consider more frequent Peer Exchanges.
- Change contracts to include group management process (team approach).
- Change project selection process to end February/March.
- Consider possible coordination with DSR/PIO for other marketing activities.
- Enhance current project proposal format (e.g., "Impact to Practice").
- Develop instructions for computer equipment purchases.
- Adopt NCHRP concept for schedule tracking (% complete, digital format).
- Explore paying tuition plus salaries to graduate students.
- Explore internal "search" capabilities within the FDOT Research Center Website.
- Modify PI evaluation system.
- Develop PM satisfaction survey/training.
- Consider alternative program performance measures.
- Consider establishing Research Program Advisory Committee.

This exchange provided an excellent forum to validate many of the policies and methods that have been established to manage the research program. This process has affirmed that the program, process, and procedures established in the research program manual achieve Federal intent, that our decision to evaluate research providers is correct, and that we are on the right track in the development of our current database.

Appendix A: Peer Exchange Agenda

Sunday, February 3, 2002

6:00 – 7:30   *Icebreaker*

Monday, February 4, 2002

8:15 – 10:00   *FDOT Research Program Management Process*

- The Research Center will present and explain the process.
- FHWA will discuss what information they require, why they need it, and what they do with it.

10:00 – 10:15   *Break*

10:15 – 12:00   *Resume Program Management Process*
- PI's, PM's, and DSR representatives will discuss how this process affects them.
- Discussion will follow to explore various ways to improve the process. This discussion needs to cover all aspects of the process and will include the following:
  - ➢ call for research needs
  - ➢ defined functional areas
  - ➢ functional office prioritization
  - ➢ management/strategic review (final selection)
  - ➢ final scope development
  - ➢ contract deliverables (list)
  - ➢ status reports (from PI's and to RiP database)
  - ➢ invoicing
  - ➢ internal tracking reports availability
  - ➢ final report format and distribution

12:00 – 1:00   *Lunch*

1:00 – 2:30   *Conclude Program Management Process*

2:30 – 2:45   *Break*

2:45 – 5:00   *Marketing Research Results*
- The Research Center will present current practices:
  - ➢ current publications
  - ➢ distribution numbers and methods
  - ➢ type of information included in our *Annual Report*
  - ➢ method for determining what to showcase
  - ➢ frequency with which we poll our receivers regarding continued interest
  - ➢ website strategy, approach, and efforts
- Discussion will follow to cover the following:
  - ➢ role of PI and PM
  - ➢ appropriate level of effort
  - ➢ contracting development/distribution of media
  - ➢ suggested improvements to current practices
  - ➢ comments on potential and existing audience

Tuesday, February 5, 2002

8:15 — 10:00 *Implementation of Research Findings*
- Discussion: What is implementation?
  - ➤ develop an acceptable definition
  - ➤ discuss criteria for accomplishment
  - ➤ discuss methods for tracking
  - ➤ discuss whether different functional areas require unique standards
- Participants will discuss past attempts within FDOT to capture the practices for and outcomes of implementing research results. The discussion will focus on problems such as the following:
  - ➤ PM's who leave
  - ➤ lack of champions to pursue implementation
  - ➤ lack of office involvement
  - ➤ lack of formal feedback
  - ➤ lack of staff to perform follow-up activities

10:00 — 10:15 *Break*

10:15 — 12:00 *Identifying the Value of Research*
- Participants will discuss the different approaches for considering what makes a good project. This discussion is a follow-up to the discussion on implementation.
  - ➤ effectiveness of current practice of prioritizing needs
  - ➤ benefits of research results—degree and significance of implementation
  - ➤ calculating benefits

12:00 — 1:00 *Lunch*

1:00 — 3:00 *Evaluating Program and Project Performance*
- Research Center briefly will discuss current method available for grading PI's and potential methods for grading PM's.
- Participants will discuss the concept of *project evaluation* and consider the following as potential criteria:
  - ➤ Was the project finished on time?
  - ➤ Was it within budget?
  - ➤ Were the findings accepted?
  - ➤ Were the findings implemented?
  - ➤ Was there a consensus on the value of the results?
- Have the previous discussions suggested ways for developing an acceptable *project performance* process?
- What indicators might be applied to measure *program performance.*

3:00 — 3:15 *Break*

3:15 — 5:00 *Conclude Evaluating Program and Project Performance*

Wednesday, February 6, 2002

8:15 — 10:00 *Develop Draft of 2nd Triennial Peer Exchange Report*

10:00 — 10:30 *Break*

10:30 — 12:30 *Finalize Report*