Office of Research & Best Practices

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MDOT Develops Action Plans to Improve Agency/Stakeholder Interaction

The Office of Research and Best Practices (ORBP) is working in conjunction with the Performance Excellence Division to provide MDOT with a research process improvement action plan. ORBP is proud to report on process improvement proposals developed based on internal/external stakeholder input.

ORBP knows it can’t be the best it can be without collaboration between the Department, project managers, principal investigators, and internal and external stakeholders. With this in mind, MDOT organized two listening sessions with MDOT staff and a third session with university partners in September 2009. During these sessions, ORBP staff listened intently to project managers, focus area managers, principal investigators, and university contract administrators. Internal and external constituents openly voiced experiences and frustrations with the process that MDOT adopted in 2008 for managing the SPR, Part II, Research Program.

The goal of the sessions, organized by MDOT’s Performance Excellence Division Consultant Mark Becker, was to contribute to ORBP's performance excellence through open dialog. The ideas voiced by concerned stakeholders during these sessions led to ORBP’s nine work sessions lasting over three hours each, and resulted in process improvements such as:

- Providing opportunities for internal and external communication within and between all levels of MDOT and external stakeholders;
- Allowing external stakeholders equal access during research idea development;
- Dedicating more time for meaningful input from all research stakeholders; and
- Training stakeholders to understand their role in the improved research program.

These proposed process changes are just the first big step in improving ORBP’s research program. During the first half of 2010, MDOT will also be meeting with its University partners to improve the contracting process. In the mean time, ORBP is interested in obtaining input on those process improvements that are related to the three major research project development activities:

1. Developing Research Ideas
2. Defining the Problem Statement
3. Contracting a Project

The improved process includes the following changes:

1. Research Ideas
   a. Set Priorities: Research Executive Committee (REC) sets strategic priorities nine months earlier to provide more time in the process.
   b. Call for Research Ideas: All research stakeholders may respond to MDOT strategic priorities and submit research ideas for consideration. This new step provides opportunities for MDOT’s technical staff and external stakeholders to maximize creativity and input.
   c. Idea Review: ORBP facilitates meetings with mid level managers and technical experts to review ideas and name research champions. This new step enables effective MDOT staff involvement.

See “Listening” on page 2
From Calvin’s Desk

We are excited to announce that the Department is requesting your research ideas. So please, send us your ideas as outlined in this newsletter. We have funding available, and now more than ever, we are looking for ideas and projects that can provide Michigan with the competitive edge that will grow our economy and keep our workers working. It is important that these research ideas align with MDOT’s business interests as outlined in MDOT’s strategic research priorities found on our Web page.

We are looking forward to the ideas that we’ll receive over the next month, and to subsequent proposals we will receive next year. With our new processes in place to increase collaboration and communication with our stakeholders, we are expecting some of the best research projects yet.

From me and the staff of the ORBP, we wish you a happy and prosperous New Year and new decade.

Calvin Roberts, P.E.
Engineer of ORBP

Listening (continued from page 1)

d. Idea Approval: Research Executive Committee (REC) approves a final list of ideas for the Research Summit and shares it with all research partners. This step effectively communicates MDOT’s priority projects and the Research Summit agenda.

e. Research Summit: ORBP will invite internal and external stakeholders to actively discuss and develop project ideas in their areas of expertise at the May 2010 Summit.

2. Problem Statements

a. Writing Problem Statements: Trained Research Champions will write research problem statements with Project Managers and external experts helping as needed. This provides technical staff with opportunities for process input.

b. Approving Problem Statements: Problem statements will be approved prior to posting by the 1) Research Champion, 2) Focus Area Managers, 3) Bureau director, 4) Deputy director, and 5) Engineer of Research and Best Practices. This allows for MDOT program alignment and approval at several levels.

3. Proposals & Contracting

a. Request for Proposals: Two requests for proposals will be posted, one for each of the fiscal years in the biennium. In addition, the time for proposal preparation will be extended to six weeks for each annual request.

b. Scoring: Proposals will be scored by MDOT’s technical staff with an improved scoring system. The first fiscal year’s proposals will be scored in the spring and the second fiscal year’s proposals will be scored in the fall. Training and improved scheduling will help technical staff complete the scoring.

c. Projects awarded: ORBP will work with the Contract Services Division and the Principal Investigator to get contracts in place for the project award.

With these and future improvements, ORBP will position itself to deliver another biennium of new research projects that save citizens’ lives and taxpayers’ dollars. ORBP is grateful that its stakeholders took the time to express their concerns and suggestions clearly, and ORBP is pleased and excited about the improvements we are making as a result.

ORBP looks forward to sharing more of the details about the changes as the next biennial call cycle approaches. Stakeholders are invited to review the process and send comments to <mdot-research@Michigan.gov>. “We want everyone’s feedback on this improved process,” says Calvin Roberts, Engineer of Research and Best Practices, “We want ORBP to be a leading DOT research program in the country and we want everyone involved to be proud of our research program and accomplishments. We know that can’t happen without everyone’s support and involvement.”

Revised Research Administrative Schedule

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<th>Administrative Activity</th>
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<td>3. Proposals &amp; Contracting</td>
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R = Request for proposal one request for each year of the Biennium is represented

S = Research Summit
Research Project Highlight: An Evaluation Of Right-Turn In/Right-Turn Out Restrictions In Access Management

The Office of Research and Best Practices (ORBP) solicited research on the effects of right-turn access restrictions. Dr. Richard Lyles of Michigan State University led the two-year research with project management by MDOT’s Lauri Olsen.

According to Project Manager Lauri Olsen, the Department currently limits the number of right-turn access points for safety reasons, and this project sought to validate or revise the current restrictions and permitting process. By evaluating the positive and negative impacts of right-turn in/out access restrictions, MDOT was able to evaluate the existing guidelines, permitting, and designs.

The two project phases included a search and review of existing literature, practices, and processes in Phase I; and data collection, analysis, and report preparation in Phase II.

In Phase I, researchers explored traditional published sources; queried consultants, local agencies/jurisdictions, and developers regarding experience with turning restrictions; and performed on-site reviews of existing sites where right-turn restrictions were considered or implemented.

In Phase II, researchers collected traffic data, performed data analysis, and conducted computer simulations to provide quantitative results. The final report was submitted and accepted in the fall of 2009.

Summary of Recommendations

According to ORBP’s Michael Townley and Project Manager Olsen, the research study confirms that restricting the number of access points reduces the number of crashes. The research study also provides data indicating that some access restriction designs work better than others. The data and analyses provide the Department important data for guiding future decisions on driveway access requests.

The research validated current practices and did not directly influence any policy changes or new processes in the Department. More details on access management policies are available on MDOT’s Web site <http://Michigan.gov/MDOT> by clicking “Projects and Programs” on the left side and then on “Access Management” on the Projects and Programs page. The published report will be available at the MDOT library (517) 373-8548.

Contact information for Project Manager Lauri Olsen Phone: (517) 241-3028 E-mail: <OlsenL@Michigan.gov>.

Submit Your Research Ideas by February 16, 2010 for MDOT Consideration

We’ve Moved!

ORBP has moved to new offices. Please make a note of these changes:

ORBP is consolidating its offices to one location on the first floor of the VanWagoner building next to the Library. All 13 staff members will be located in the new offices.

ORBP’s main mailing address has not changed: State Transportation Building 425 W. Ottawa St. P.O. Box 30050 Lansing, MI 48909

ORBP’s main phone number has not changed: (517) 241-2780

Call for Research Ideas by Feb. 16

The Office of Research and Best Practices (ORBP) depends on creative ideas and a sound scientific approach that its partners provide. ORBP is seeking good ideas from its partners to bring innovation into the Department’s design, construction, maintenance, safety, operations, planning, and environmental practices. Some of the ideas from previous years include:

- Evaluating pedestrian safety improvements;
- Efficient use of recycled concrete in transportation infrastructure;
- Bridge decks: Damage and assessment of repair options that extend service life;
- Laboratory evaluation of warm mix asphalt; and
- Low-cost, high impact changes to service elderly transportation users.

ORBP asks university researchers, consultants, and MDOT staff to take the following steps to recommend new research ideas:

1. Develop a research idea with a co-worker;
2. Fill out the research idea form, which is available at <http://Michigan.gov/mdotresearch/> and return it to ORBP at <mdot-research@Michigan.gov>; and
3. Plan to participate in the Research Summit in May where selected research ideas will be further refined through stakeholder input.

Because the ideas submitted via this form will be shared with others, intellectual property should not be included on the research idea form. MDOT’s executives and experts will review the submitted ideas after February 16, 2010 in preparation for the Research Summit and start of the FY 2012-13 research biennium. Selected ideas will be further refined with stakeholder input in preparation for a competitive request for proposal funded by SPR, Part II, Research Program funds. MDOT spends approximately three million dollars on SPR, Part II, Research Program projects each year.
Research Summit Coming In May

The Michigan Department of Transportation (MDOT) will hold the second Biennial Research Summit in Lansing in May 2010. The Summit is the first step in transforming good ideas into well defined problem statements. The Summit meeting agenda will feature topics of interest to university researchers, MDOT staff, consultants and transportation stakeholders. Summit attendees will:

- Learn about MDOT’s strategic research focus areas;
- Listen to presentations about projects from ORBP staff and MDOT’s research project managers;
- Participate in small groups to improve research ideas approved by MDOT’s executive team; and
- Network with others with common research interests.

Plan on attending this transportation research event and watch our Web site for announcements on the location, date, and agenda. Agenda items will include:

- Research Needs - MDOT’s Research Executive Committee members will describe short- and long-term research needs, and ORBP will report on specific promising research ideas;
- Past Research - MDOT researchers will spotlight high-value research already yielding benefits in Michigan; and
- Future Research - Meeting attendees will split into working groups with project champions and discuss how to improve research ideas.

Ideas previewed at this Summit form the basis for MDOT proposal requests in the following year. In preparation for the upcoming Summit, MDOT staff will be meeting at all levels of the organization to generate and rank research ideas. ORBP will be organizing and facilitating the process. See the article in this newsletter or watch our Web page <http://www.Michigan.gov/mdotresearch> for direction on submitting research ideas by February 16, 2010 to be considered for the Research Summit.