OHIO'S
RESEARCH

ORIL

INITIATIVE
for LOCALS

GUIDEBOOK

FEBRUARY 2021

PURPOSE

This guidebook provides an overview of Ohio's Research Initiative for Locals (ORIL) program. It provides information on the development and operation of the program, evaluation criteria for prioritizing research ideas and for the selection of researchers, and standard forms and submission instructions.

Sections included in the guidebook are:
➢ History
➢ ORIL Board
➢ Technical Advisory Committees
➢ Program Execution
   ➢ Phase 1: Idea Generation
   ➢ Phase 2: Project Execution
   ➢ Phase 3: Results Implementation
   ➢ Phase 4: Program Assessment

Forms and documents referenced in this guidebook are on the ORIL website.

HISTORY

In September 2011, the Ohio Department of Transportation (ODOT)'s Research Section, in collaboration with the Ohio Local Technical Assistance Program (LTAP), set out to create a process for Ohio's locals to participate and benefit from transportation research. A peer exchange was conducted in which representatives from established and successful locally focused research programs from Iowa and Minnesota were invited to share their experiences and best practices. Supporting this idea was the Federal Highway Administration Ohio Division Office and the County Engineers Association of Ohio. At the completion of the peer exchange, a model was drafted for a local research program in Ohio. In July 2012, approval to move forward with the program was given by ODOT's Executive Leadership.

Partnerships were formed between ODOT and the Ohio Township Association, Ohio Municipal League, and County Engineers Association of Ohio. A Board was established to oversee the development and administration of the program, and the inaugural meeting of the ORIL Board was held in February 2013.

More information is in the 2011 ODOT Peer Exchange Final Report available on the ORIL website.

ORIL BOARD

The Board was established to oversee the development and administration of Ohio's local transportation research program. The roles and responsibilities of the Board are to:
- o   Develop and maintain the program.
- o   Market the program.
- o   Establish strategic research focus areas.
- o   Conduct outreach for research ideas.
- o   Select and recommend projects for funding.
- o   Establish Technical Advisory Committees (TAC) to oversee individual projects.
- o   Select researchers to conduct projects.
- o   Review progress of projects.
- o   Review and approve/deny all contract modification requests.
- o   Assess research results and implementation potential.

The Board conducts business in accordance with the adopted ORIL Board Standard Operating Procedures (SOP). A copy of the Board's current SOP is available on the ORIL website. Board members volunteer their time and expertise to the ORIL program. They are not reimbursed for their time or travel to meetings. In general, the Board meets four times a year for a strategy meeting, idea prioritization and TAC establishment, program review, and researcher selection. Each year the Board elects a Chair to oversee activities and to establish a calendar of key meetings and dates. The ORIL calendar is posted on the ORIL website.

The Board consists of 15 voting members. Additionally, there are support (non-voting) members from ODOT's Research Program, the Ohio LTAP Center and FHWA's Ohio Division Office. The membership is diverse to ensure representation of all local entities within Ohio. A term is four years for all members, except for members from academia who are limited to two years. Under the inaugural Board, organizations with four members were assigned a staggered term which allowed two members to serve for two years. This was done to rotate membership to support knowledge retention and to ease the transition for future board members.

ORIL Board Composition	
Organization Represented	Members
Voting Board Members	
County Engineers Association of Ohio	4
Ohio Municipal League	4
Ohio Township Association	1
Ohio Department of Transportation (ODOT)	4
Academia	2
Non-Voting Board Members	
Ohio LTAP ODOT Research Program FHWA Ohio Division Office	

Board members that represent the County Engineers Association of Ohio, the Ohio Municipal League, and the Ohio Township Association are appointed by their organizations. Memorandums of Understanding (MOU) have been established between each of these organizations and ODOT. The MOUs outline the role and commitment of the organization to the ORIL program and provide guidance on the selection, term, responsibilities, and ability to propose projects by their board members. If a board member from one of these organizations is unable to perform their duties or fulfill their term, the organization will provide a suitable replacement to satisfy the remaining term of that representative at the Board's request. Board members from these organizations must recuse themselves from voting on the awarding

of projects or modifications to active contracts that include any entity (e.g., university, consulting firm) in with which they are actively employed.

Board members from ODOT are appointed by ODOT's Executive Leadership or their designee. ODOT's Research Section coordinates an open solicitation for ODOT staff to submit applications of interest. If an ODOT board member is unable to perform their duties or fulfill their term, upon request by the Board, ODOT Executive Leadership or their designee will provide a suitable replacement to satisfy the remaining term of that member.

Board members from academia are selected by seated Board members. An open solicitation for applicants from Ohio-based universities is coordinated by ODOT's Research Section. In the event an academic board member is unable to perform their duties or fulfill their term, upon request by the Board, ODOT's Research Section will solicit for replacement candidates. The seated board members will select a suitable replacement from the applications received to satisfy the remaining term of the departing academic representative. Voting for the replacement member occurs quickly, generally via email, and is not dependent on a Board meeting to occur. While serving on the Board, members from academia are not permitted to submit proposals for advertised/posted research projects overseen by the Board. However, other staff from the academic' institution can submit proposals. Academic board members must recuse themselves from voting on the awarding of projects or modifications to active contracts with their institution and the selection of academic board representatives if they are seeking reappointment or another individual from their institution has applied. Academics who are conducting active projects sponsored by ORIL cannot submit applications to join the ORIL Board until their projects are completed. Academic Board Members are not permitted to submit proposals or be on a research team for a submitted proposal for any ORIL project developed during their term including ideas discussed during Board meetings. Academic Board Members are encouraged to seek clarification from ODOT's Research Section if they are unsure of their eligibility status. ODOT establishes a MOU between each academic board member detailing their role and commitment to the ORIL program.

To learn more about current Board Members, see the ORIL website.

TECHNICAL ADVISORY COMMITTEE

A Technical Advisory Committee (TAC) is a group of subject matter experts who provide oversight and direction on a research project. TACs are established by the Board after a research idea has been selected for project development.

Generally, a TAC is comprised of the submitter of a research idea, an ORIL Board member, and an ODOT staff member with experience in the subject matter. There is no limit on the number of people on a TAC and members may serve on multiple TACs simultaneously.

The responsibilities of a TAC include:
• Developing a research idea into a Request for Proposal (RFP).
• Reviewing proposals and providing recommendations for researcher selection.
• Monitoring project progress.
• Providing technical advice and guidance to researchers.

- Assisting in project-related activities that may include but are not limited to: coordinating sites for field testing, providing data, and coordinating training with local agency staff.
- Participating in project meetings.
- Reviewing and commenting on project reports.
- Reviewing and making recommendations on requests to modify contracts.
- Assessing the researcher's findings and recommendations.
- Marketing practice-ready research findings to their colleagues.

TAC members volunteer their time and expertise to projects. They are not reimbursed for time or travel. TAC members who are not employed by ODOT are required to complete a TAC Acknowledgement Form for each project on which they participate. The form clarifies and acknowledges the roles and responsibilities of TAC members. A copy of the TAC Acknowledgement Form is on the ORIL website.

PROGRAM EXECUTION

To fullfill its mission and vision, ORIL operates as an independent transportation research program. The Board directs the program management process, including the solicitation of research ideas and development of RPFs, the selection of researchers, the oversight and guidance of ongoing research work, and the technical direction and assessment of research results for possible implementation. ODOT's Research Section helps the Board in the development and management of the individual projects and serves as the contracting agent for the ORIL program.
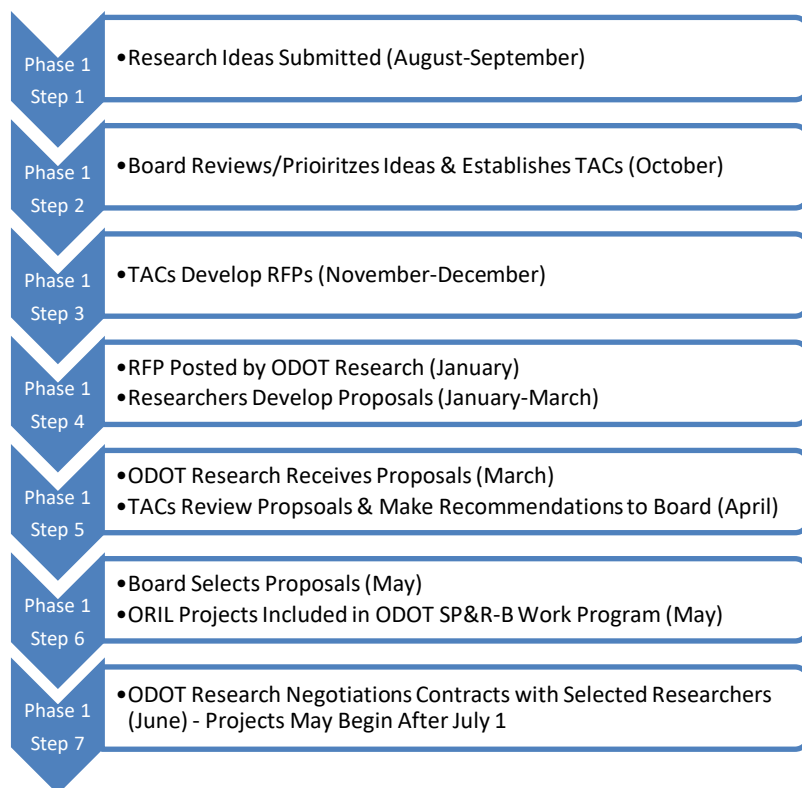
The ORIL research cycle consists of four phases:

(1) Idea Generation	→	(2) Project Execution	→	(3) Results Implementation	→	(4) Program Assessment
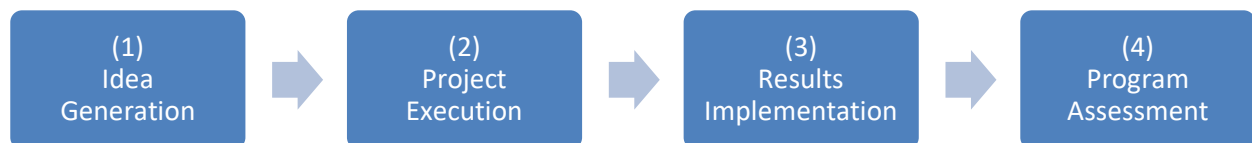
PHASE 1: IDEA GENERATION

To ensure the program is meeting the transportation research needs of Ohio's locals and funds are used responsibly, the Board establishes, reviews, and annually updates a strategic research plan. The plan outlines the focus and direction of the program and serves as the basis for research idea generation. The current ORIL Strategic Research Plan is on the ORIL website.

The process of moving from research idea to research project is summarized in the seven-step graphic below.

Phase 1 Step 1	• Research Ideas Submitted (August-September)
Phase 1 Step 2	• Board Reviews/Prioiritzes Ideas & Establishes TACs (October)
Phase 1 Step 3	• TACs Develop RFPs (November-December)
Phase 1 Step 4	• RFP Posted by ODOT Research (January) • Researchers Develop Proposals (January-March)
Phase 1 Step 5	• ODOT Research Receives Proposals (March) • TACs Review Propsoals & Make Recommendations to Board (April)
Phase 1 Step 6	• Board Selects Proposals (May) • ORIL Projects Included in ODOT SP&R-B Work Program (May)
Phase 1 Step 7	• ODOT Research Negotiations Contracts with Selected Researchers (June) - Projects May Begin After July 1

Once a year, a formal solicitation for research ideas is issued by the Board. Ideas may be submitted at any time; however, the Board considers ideas for project development/funding only once a year.

To submit an idea, an ORIL Research Idea Form (located on the website) must be provided. All ideas must relate to at least one of the focus areas identified in the current ORIL Strategic Research Plan. Special submission instructions and/or restrictions posted on the ORIL website during the solicitation period must be adhered to for the idea to receive consideration.

All properly submitted ideas are considered by the Board for project development and potential funding. Criteria that is used to evaluate and prioritize research ideas is posted on the ORIL website. Preliminary literature searches may be performed as part of the idea develop process. Based on the availability of program funds, the Board identifies the research ideas that will move forward and then establishes a Technical Advisory Committee (TAC) to assist in the development and management of the project. ORIL projects are forwarded to ODOT's Research Section for inclusion in the *ODOT Statewide Planning & Research Part B State Fiscal Year Work Program*. Projects must be included and approved in the *Work Program* for ODOT to fulfill its role as ORIL's contracting agent.

With assistance from ODOT's Research Section, TACs develop research ideas into Requests for Proposals (RFP). The ORIL RFP template is on the ORIL website. ODOT's Research Section coordinates the posting and processing of ORIL RFPs. Once the ORIL RFP has posted, a blackout period takes effect which prohibits any individual from discussing posted RFPs with potential researchers. Instructions for submitting questions on posted RFPs are included in the posting. RFP questions and responses received during a posting will be made available for public viewing on the RFP website.

Researchers interested in conducting ORIL projects may only submit proposals in response to posted ORIL RFPs; no unsolicited proposals are accepted from the research community. Unless otherwise instructed, all proposals must be formatted and submitted in accordance with the proposal guidelines that are posted on the website. Failure to follow the guidelines or instructions in the posting will result in non-compliance, and the submission will be subject to rejection.

All properly submitted proposals are forwarded to the appropriate TAC for evaluation. The TAC proposal review and scoring criteria are available on the ORIL website. The recommendations from TACs are forwarded to the Board, who makes the final recommendation for researcher selection. When ODOT's Research Section obtains approval of their *Work Program*, they will proceed with contract negotiations. Since proposals are incorporated into executed contracts, multiple revisions to a proposal may occur prior to a contract being issued. This process is coordinated by ODOT's Research Section in cooperation with the appropriate TAC as necessary. Contracts for ORIL projects are standard research agreements used by ODOT's Research Section and are available for review on the ODOT Research website.

PHASE 2: PROJECT EXECUTION

Once the contract is fully executed, work can begin. The execution of research is a collaborative effort between the Board, ODOT's Research Section, TACs, and researchers. The Board provides oversight of the entire program, a general review on the progress of individual projects, and an in-depth evaluation on the recommendations and implementation potential of each project. ODOT's Research Section provides administrative management on
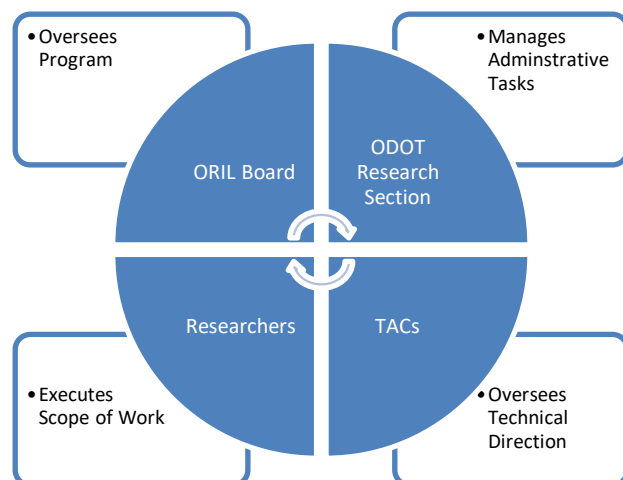
all projects including contractual oversight, billing, and deliverables. In addition, ODOT's Research Section also assists in any required coordination needed between the TACs, researchers, and the Board. TACs work closely with researchers to provide technical oversight and direction on projects. Researchers perform the lab and field work and provide recommendations for implementation based on research results in accordance with their respective contracts.

Generally, project execution has three key steps: initiation, management, and close-out. All contracts are issued, executed, and administered between ODOT's Research Section and the selected research agency on behalf of the ORIL Board. The required processes and procedures of ORIL contracts are described in Chapter 5 of the ODOT Research, Development and Technology Transfer (RD&T^2) Manual of Procedures, which is available on the ODOT Research website. A general overview of the three key steps is below; for more detailed information refer to Chapter 5 of the ODOT RD&T^2 Manual.

Step 1: Project Initiation

Once a contract is executed, ODOT's Research Section schedules a project start-up meeting with the researcher and TAC members. During the start-up meeting, contractual and administrative procedures are discussed; the scope of work, budget, and work schedule are reviewed; criteria for determining the performance and success of the project is defined; and the project's implementation potential is assessed.

Step 2: Project Management

Project management occurs at several levels. ODOT's Research Section oversees the administrative and contractual aspects of ORIL projects. TACs provide technical direction, guidance, and review. Researchers conduct the tasks identified in the contracted proposals and then present the results of the research and make recommendations for implementation. Each participant plays an integral role in the research process and is important to the overall success of the project.

A key component to successful research is communication. Ensuring that all parties are kept informed and current on research activities alleviates problems and helps to transition research results into practice-ready findings. Researchers and TACs are strongly encouraged to communicate with each other on a regular basis throughout the duration of the project. To assist in the communication effort, the submission of reports (interim, draft, and final) and participation in meetings (status updates and review sessions) are required on all projects. The report submissions and meeting attendance are considered contractual deliverables, although they should not be viewed as the only form of interaction between project participants.

As work progresses, it may be necessary to revise or amend components in the scope of work, budget, or timeline. If this is necessary, ODOT's Research Section will coordinate with the TAC and the researcher. While researchers are encouraged to discuss contractual matters with their TAC, only ODOT's Research Section can authorize/process a change to the contract. All changes that result in a modification to the contract must be reviewed and approved by the Board before ODOT's Research Section will issue an addendum.

Step 3: Project Close-Out

Projects are completed once all tasks outlined in the final scope of work have been satisfied, all specified deliverables received, and the final invoice is processed. Indications that a project is complete includes an approved/published final report with accompanying fact sheet and a research results presentation (if requested). Both items share knowledge gained through the research and aid in transitioning into the next phase: results implementation. To assist in this process, ODOT's Research Section works closely with TACs and may coordinate project close-out meetings to ensure there are no remaining issues.

PHASE 3: RESULTS IMPLEMENTATION

Transportation research is a valuable tool designed to explore and find solutions to problems and to increase overall knowledge. Without proper follow-up though, the value of the research may not be communicated, be underused, or fail to be put into practice. To ensure that the time and resources invested in ORIL projects are worthwhile, a strong emphasis is placed on the implementation of research results.

Emphasis on implementation is highlighted early in the research process. Idea submitters are instructed to include the potential advantages of the research and identify agencies, businesses or processes that may benefit from the results. TACs emphasize implementation during the development of RFPs and researchers discuss implementation in the proposal. Research results are addressed in project meetings from the beginning to the end of the project. Implementation can occur at any point in the research cycle; it does not have to wait until the project has ended. Local organizations may implement research results at their discretion.
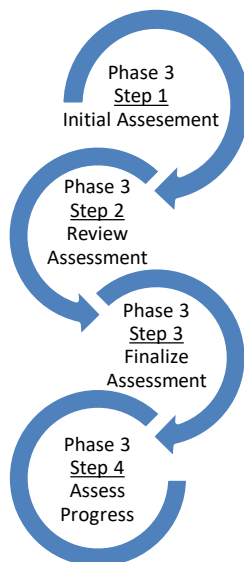
The ORIL Board has adopted the four-step process that ODOT's Research Section uses for implementation: initial assessment, review assessment, final assessment, and then assess the implementation's progress. An overview of the steps are provided below with more detailed information in Chapter 6 of the ODOT RD&T[2] Manual on the ODOT Research website.

During a project start-up meeting, ODOT's Research Section conducts an initial assessment with the TAC and researchers. The purpose of the initial assessment is to summarize the project's potential for implementation based on the information provided in the proposal and RFP. As the project progresses the initial assessment is periodically reviewed with the entire team and updated. Once the project is complete, ODOT's Research Section will conduct a final assessment with the TAC. This final assessment will update information on any implementation activities that occurred during the project, review the researcher's recommendations for implementation provided in the final report, and determine the need for future actions to promote implementation and determine a return-on-investment for the project.

The final implementation assessment is presented to the ORIL Board to determine the need and extent of additional action at the program level. Generally, the Board will consider two potential courses of action:

- Take steps to further prepare research results for widespread distribution and use by local transportation agencies. This could point to the development of a continuation study to further investigate promising recommendations, or to the issuance of a pilot project to refine/validate recommendations.
- Focus efforts on technology transfer activities to inform local transportation agencies of practice-ready research results or knowledge gained.

ODOT's Research Section supports implementation efforts as recommended by the Board. Responsibility for implementation activities ultimately lies with the local public agency that has opted to implement the research results.

PHASE 4 – PROGRAM ASSESSMENT

Performing an assessment of individual projects and of the entire program is an on-going activity. To ensure that the program is meeting the needs of local transportation agencies in Ohio and to safeguard the program's integrity, the Board formally evaluates the program on an annual basis.

Four components of the program that are assessed include the processes and criteria, the strategic research plan, individual projects, and implementation activities.

The Board reviews, discusses, and adjusts its processes and evaluation criteria to make sure the mechanisms used to solicit and prioritize research ideas and to select researchers are both efficient and effective. Any changes in these areas are provided in this guidebook and/or the Board's SOP. For the most recent versions of these documents, see the ORIL website.

In addition to assessing their processes and criteria, the Board reviews and updates the strategic research plan to ensure that the program remains focused on meeting the current needs of Ohio's local transportation agencies. Any changes to the strategic research plan will result in the issuance of an updated plan and prompt outreach to Ohio's locals. The strategic research plan can be found on the ORIL website.

On a programmatic level, the Board assesses the progress of all active ORIL projects. While TACs are responsible for the progress of their assigned projects, the Board evaluates the overall evolution of research projects so that there is confidence in the program advancing in support of ORIL's mission and vision. A goal of the ORIL program is to create a balanced portfolio of projects that incorporate multiple disciplines and encourage collaboration among local entities. This project-level assessment of the program helps the Board successfully meet this goal.

In addition to reviewing implementation assessments for individual projects, the Board monitors the progress of research implementation activities. In an ongoing effort, the Board would like to devise methodologies to determine the impact research has on local transportation agencies in Ohio. Their goal is to gauge the overall benefit Ohio's locals may experience from research and to highlight the successes of the program as examples of research-in-action.