Research and Training Services
Available to Local Agencies

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The Division of Research and Training is a Division of the Indiana Department of Highways. It is located in West Lafayette, in the Purdue Research Park. There are four services we can help local agencies with. These include: training courses, special testing, experimental feature studies, and the highway research information service.

TRAINING COURSES

Numerous courses are offered annually in the winter months (February—April) each year. They include: Bituminous Paving Inspector Course which is a two-day class for the new or inexperienced inspector. This course covers the inspectors responsibilities, communication with the contractor, basic traffic control, equipment, mixes, laydown, temperature, preparation, appearance, responsibilities of weighman, and hazards and safety associated with bituminous paving.

The Bridge Deck Repair Course is a one-day class for employees who will be assigned to bridge deck projects. The course covers inspection, methods, materials, project administration and field control. The Field Office Procedures Course is a two-day class for engineers, supervisors, and inspectors who will be responsible for maintaining project construction records.

The Project Engineer/Supervisor Workshop which is a five-day class for engineer/supervisors with at least one year field construction experience. The course covers project administration, construction procedures, new methods, materials, specifications, field problems, and solutions.

The Nuclear Gauge Course is a one-day class for new nuclear gauge operators. The purpose of this course is to train and certify IDOH nuclear gauge operators. Local agencies may sit in for information, but not for certification due to our license restrictions.

The Soil and Concrete Specific Task Courses are one day classes for new inspectors. The courses cover density testing of fine and course grain soils, concrete testing of plastic concrete, and associated calculations.

A course description book describing these courses and a registration form is sent out by the Division of Research and Training, through
the Division of Local Assistance, to local agencies annually. It is sent approximately November or December of each year. There may still be room in some courses presented yet this year. If interested, please contact Ms. Angie Schrader or myself at 232-7510 or area code (317) 463-1521. There is no charge for local agency personnel to attend these courses. Attendance, however, is predicated on a space available basis.

SPECIAL TESTING—THREE AREAS.

The first area is friction testing. Jack Lautenschlager is the engineer in charge of friction testing. Friction testing is performed with a locked-wheel-trailer-drawn system. The system simulates what a vehicle feels when trying to stop on wet pavement. Friction testing can be used to evaluate frictional resistance of a pavement, help establish speed limits, identify slippery locations, and locate potential accident sites.

The second area is roughness testing. Keith Kercher is the engineer in charge of roughness testing. Testing is performed with a Cox PCA Roadmeter. The system measures roughness of a pavement and relates this to what a road user feels. Roughness testing can determine the roughness of a road; establish the present serviceability index of a road, which is a measure of the acceptability of a road; and help establish criteria as to which roads need to be resurfaced first.

Deflection testing is the third area of special testing that is available. Brad Love is the engineer in charge. Deflection testing is performed with a highway products dynaflect which imparts a 1,000 lb. oscillating load to the pavement. It is a nondestructive testing device. Deflection testing can be used to evaluate subgrade support, find voids under the pavement, and determine pavement strength.

To request special testing you should send a short letter to myself or the engineer in charge indicating what you would like tested and when. We will in turn evaluate whether testing will indeed answer your problem, check our schedule and determine a testing date, and determine the cost of testing. The cost is just reimbursement for our actual cost. This information will be relayed to you. If you are still interested, we will perform the testing. After testing we will send you the test data, a short analysis of the data, and the invoice.

There are some testing requirements one needs to be aware of when requesting special testing. For friction testing, tests are performed at 40-50 mph. Traffic control is needed if testing is performed through intersections or on a low speed road. Traffic control would be supplied by your agency. For roughness testing, no testing is performed on unpaved roads (it's too damaging to our tester). Tests are performed at 30 or 50 mph. For deflection testing, the system has to stop to test, therefore, traffic control is again needed and would be supplied by your agency.
EXPERIMENTAL FEATURE STUDIES.

Mark Harness is the engineer in charge of these studies. Experimental feature studies can only be used on federal aid projects.

An experimental feature is defined as any material, process, method, equipment item, or traffic operational device that has not been sufficiently tested under actual service conditions to merit acceptance without reservation in normal highway construction or has been accepted, but needs to be compared with alternative acceptable features for determining its relative merits and cost effectiveness. A good simple federal highway definition.

The purpose of this program is to promote new and innovative highway technology under actual construction and operating conditions. FHWA will pay for the construction or installation of any approved experimental feature under normal construction funds. However, FHWA will not pay for the evaluation.

Local agencies are responsible for preparing the study plan. The Division of Research and Training is available for technical assistance. Local agencies are responsible for evaluation of the experimental feature and are responsible for the cost of the evaluation. They are also responsible for preparing annual progress reports and the final report. Continuity within the study needs to be maintained among administrations when performing experimental feature studies.

If a local agency wants to try an experimental feature on a federal aid project the agency should obtain a copy of the “Guidelines for Initiating and Reporting Experimental Feature Studies.” The guidelines are available from the Division of Research and Training at no charge. Requests for experimental feature studies and reports should be submitted through the Division of Local Assistance.

HIGHWAY RESEARCH INFORMATION SERVICE (HRIS).

This is a national and international tabulation of research being performed in areas of highway transportation. IDOH pays a flat fee annually for this service.

If one has an area of interest and would like to know what research has been performed in that area, please contact Mark Harness at the division. You will in return receive a tabulation of abstracts of research performed in the area of interest and information on where to get the full reports. Also listed are the authors and where they can be contacted. We would be happy to process your requests for information. Again there
is no charge for this helpful service. The Division of Research and Training phone number and address is as follows:

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