

Advancing PCC pavement research

Iowa State University's new Portland Cement Concrete Pavement Research (PCC) Laboratory, currently under construction, will be one of the few university laboratories in the country (perhaps the only one) with an entire PCC research system under one roof. The new lab will further Iowa's national leadership role in PCC pavement research and innovation.

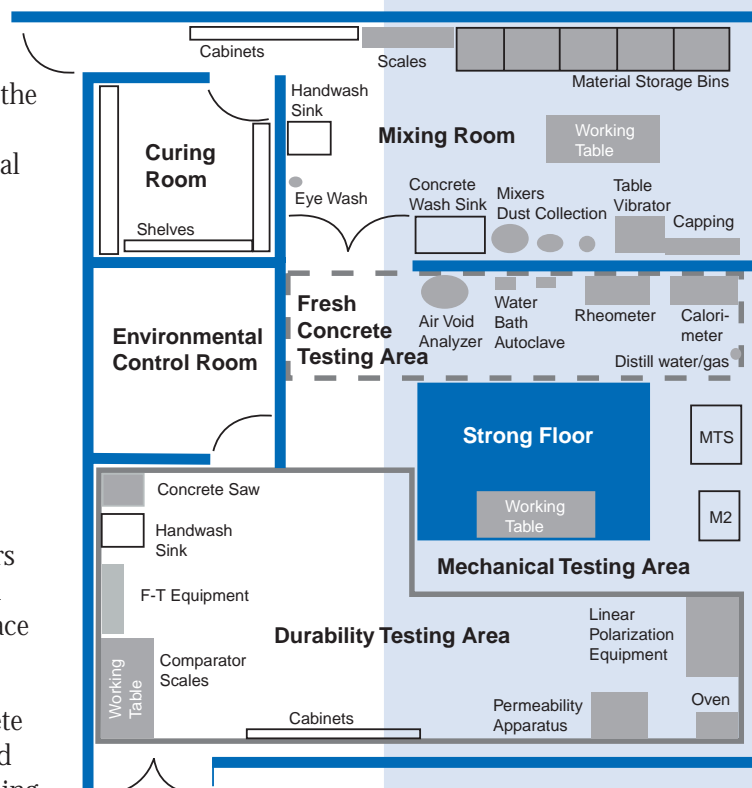
The new lab will have four major components:

- concrete processing/manufacturing
- mechanical testing of hardened concrete
- fresh concrete property measurement
- durability-related experiments

By simulating field conditions in the lab, university researchers and graduate students will be able to conduct accelerated and more cost-effective performance testing than traditional in-place field tests.

The lab is a project of the Center for Portland Cement Concrete Pavement Technology (the PCC center), which is administered through CTRE. The Iowa Concrete Paving Association is funding the majority of building remodeling and lab equipment costs. ISU's Department of Civil and Construction Engineering and Office of the Vice Provost for Research and Advanced Studies will contribute the balance.

For more information, contact Kejin Wang, assistant professor of civil and construction engineering, 515-294-2140, kejinw@iastate.edu, or Dale Harrington, director of the PCC center, 515-294-8103, pconcc@iastate.edu. •



Design for Iowa State University's new PCC Pavement Research Laboratory.

Mapping potential high crash locations

The high crash location identification tools developed as part of this study will help the Iowa DOT identify appropriate future roadway safety improvement project locations. To demonstrate the utility of the project's tools, lists and maps of the top potentially high crash locations were generated for each design characteristic considered (see map on page 4 for example).

Other applications

The CTRE project team has also generated

many other related tools and applications. One such application, a database of roadway curves, has already directly led to the deployment of measures to mitigate dangerous curves.

For more information about high crash locations

The report is online at www.ctre.iastate.edu/reports/hcl.pdf. For more information, contact Ali Kamyab, research scientist, 515-294-4303, kmb@iastate.edu. •