LTPP InfoPave™

Q&A

What is the goal of the LTPP Program?

The Long-Term Pavement Performance (LTPP) program is the world's largest pavement performance monitoring study, collecting data at 2,514 in-service highway test sections throughout the United States and Canada. The primary goal is to understand how and why pavements perform as they do so that State and local highway agencies can make informed decisions and provide the public with safer and more cost-effective pavement infrastructure.

What is LTPP InfoPave?

LTPP InfoPave is a Web-centric interface for LTPP data and information, providing a powerful and flexible tool that enables users of all levels—highway agencies, researchers, and students—to visualize, extract, and employ LTPP data and knowledge.

Who uses LTPP InfoPave?

LTPP InfoPave is being used by thousands of users around the world. Professional engineers from State departments of transportation and the private industry visit the LTPP InfoPave Web site to visualize and access LTPP data for highway pavement design, preservation, maintenance, and rehabilitation analyses. Academic faculty, students, and researchers frequently use LTPP InfoPave to extract data for various studies aimed at prolonging the service life of highway infrastructure. University students also have the opportunity to participate in the annual American Society of Civil Engineers (ASCE) LTPP InfoPave Data Analysis Contest.

How does LTPP InfoPave facilitate access to the data?

LTPP InfoPave contains features to locate LTPP test sections and view data ranges on a map. Users can also employ the search engine to look for desired LTPP data. Several analysis features facilitate preliminary analyses of data availability and suitability for in depth research studies. Various interactive platforms of LTPP InfoPave make it easy to access and download data from numerous LTPP database tables.

What are the LTPP InfoPave data visualization features?

LTPP InfoPave provides powerful interactive features that enable visualization of LTPP data, demonstrating the timeline of pavement construction and rehabilitation activities, showing changes in the pavement structure with time, plotting pavement performance metrics with time, demonstrating the correlation among various data elements, and providing the collected pavement images and videos.

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How does LTPP InfoPave provide information resources?

LTPP InfoPave provides access to program documentation, data collection guidelines, and research reports in a searchable online library. In addition, multiple pavement engineering tools developed under the LTPP program are accessible in LTPP InfoPave.

What are the benefits of the LTPP program?

The LTPP pavement sections are monitored until they reach the point of failure. What researchers learn about when and why the sections fail provides crucial information on how to build longer lasting and more cost-effective roadways. The result is that State, county, and city governments can be confident that the pavements constructed in their communities will provide a smoother ride, with fewer delays, for many years. In 2012, the U.S. Congress passed the Moving Ahead for Progress in the 21st Century Act (MAP-21), which calls for a data-driven performance management framework to be used by State and local highway agencies in spending infrastructure funding. In this regard, the LTPP data is instrumental in providing practical and acceptable pavement performance thresholds.

Adopted by the American Association of State Highway and Transportation Officials (AASHTO), a new design methodology was developed using LTPP data. The new method produces more economical and longer lasting pavement structures. In addition, the LTPP experience has improved our understanding of the impact of maintenance and rehabilitation (M&R) treatments. As a result, engineers can make informed, cost-effective decisions on treatment types. The LTPP program has also allowed for long-term, real-world testing of new materials, such as recycled asphalt concrete and warm-mix asphalt, which contribute to reducing the environmental impacts and increasing the sustainability of highway infrastructure.

What are the benefits of LTPP InfoPave?

With user-friendly data download platforms, LTPP InfoPave has facilitated access to the vast amount of data in the LTPP database. As a result, more researchers and professionals from across the globe are using and sharing LTPP data to advance the state of the art in pavement engineering and management. Moreover, increased public access has facilitated more scrutiny and quality control of the LTPP database. Above all, the powerful visualization and data analysis tools in LTPP InfoPave have made it possible to compress vast amounts of data and information into an effortless transfer of knowledge. As a result, faculty at several renowned national and international universities have incorporated the use of LTPP InfoPave into their pavement engineering curriculum.

For more information about LTPP InfoPave or the LTPP program, contact the LTPP Customer Support Service Center at 202-493-3035 or ltppinfo@dot.gov.

LTPP InfoPave can be accessed at https://infopave.fhwa.dot.gov.