

## Five Year Road & Bridge Program

Efficient and effective systems of mobility translate into stronger economies. Transportation investments translate into direct savings for consumers and businesses. Therefore, every penny spent improving the transportation infrastructure measurably benefits the population as a whole. In Michigan, our road system is the underpinning of the state's mobility and, therefore, at the heart of its economy.

A statewide planning process under the Transportation Equity Act for the 21st Century (TEA-21) requires MDOT and the twelve Metropolitan Planning Organizations (MPOs) to each develop a long-range plan, which will provide the basis for transportation programs over the next 20 years.

The statewide planning process includes development of a 20-year State Long Range Plan (SLRP) and a three-year State Transportation Improvement Plan. The projects that are selected in these plans are the logical result of the needs and policies identified that have been identified across the state.

All future improvements must be consistent with the long-range plan. Michigan's SLRP is a broad, policy-oriented document used to guide transportation investment decisions at all levels of government.

MDOT continues to base its Five Year Road & Bridge Program on thoughtful investment strategies based on sound asset management principles and extensive customer feedback. New technology makes it possible to combine long-term program goals with current condition data. This allows us to generate our five-year plans, but also to achieve new investment efficiencies.

Knowing what we must achieve, the following factors are taken into consideration when developing the annual Five Year Road & Bridge Program:

**Modernization of System:** Modernization of our existing freeway system is our newest goal and is an overriding element in all aspects of our improvement program. This effort ensures that our trunkline system is updated to current geometric standards including state-of-the-art materials.

**Roadways:** MDOT evaluates pavement condition based on such things as surface condition, ride quality, safety, friction, rutting, base condition, and drainage to reach a rating of "good" or "poor". The three-tier approach used at MDOT involves reconstruction, rehabilitation, and preventive maintenance. This approach allows us to address the worst roadways through reconstruction, improve poor highways by rehabilitation, and extend the life of good pavement through preventive maintenance. We also incorporate an asset management philosophy by developing programs that prioritize projects based on such factors as traffic volumes, cost/benefit, ride quality, pavement condition, safety, user savings, maintenance savings, and condition of bridges in the corridor.

A renewed emphasis is being placed on ensuring the long-term quality of highway construction. Warranties for materials and workmanship are used routinely for many construction contracts

and expanded warranties are being evaluated on several major projects.

**Bridges:** MDOT bridge work is based on an investment strategy integrating rehabilitation, replacement, Capital Scheduled Maintenance and Capital Preventive Maintenance. We now are placing a much higher emphasis on scheduled and preventive maintenance than ever before. Computer technology allows MDOT to predict trends in future bridge network conditions based on existing conditions, average deterioration rates, and investment strategies. By doing bridges in major corridors at the same time as our road work, we assure our customers that we will provide maximum service while minimizing the inconvenience that road work causes drivers.

**Capacity Improvements:** MDOT's strategy involves focusing on relieving urban congestion along major freeways and improving service levels on state highways. We are striving to balance reasonable access for residents, businesses and industries, improve safety, and increase mobility. Most capacity improvement projects fall into one of the following categories: freeway modernization, border crossings, congestion relief, choke points, grade separations, interchanges, passing relief, tourist and recreation traffic management, or safety.

**Safety:** MDOT's comprehensive Safety Program has implemented many efforts over the past several years to improve safety on our highways. This was accomplished through comprehensive highway traffic engineering technology and participating in all phases of the department's efforts to reduce traffic crashes and injuries, vehicle delay, pollution, and operating costs. Safety is our over-riding theme in all aspects of highway construction and design.

**Border Crossings:** Michigan's international border crossings are among the busiest and most important in the nation. The Ambassador Bridge in Detroit is the busiest commercial border crossing in North America, and the Blue Water Bridge in Port Huron is the third busiest. The Detroit-Windsor Tunnel carries the most passengers of any crossing along the U.S./Canada border. A feasibility study for a new international crossing between Southeast Michigan and Ontario is currently under way. To protect the livelihood of Michigan businesses and industries, and the mobility of Michigan residents, MDOT has prepared a comprehensive border crossing strategy. We have focused on reducing delays at the borders by improving the infrastructure and using the latest technology, without losing sight of the need for security.

**Intelligent Transportation Systems:** MDOT has long been at the forefront nationally in planning, developing, and deploying ITS technology to address transportation and safety issues. ITS includes the use of computers, telecommunications, and other advanced technology to reduce traffic congestion, improve safety, expedite travel, and enhance security.

**Public Involvement/Outreach:** MDOT's efforts in recent years to gather feedback from the public, provide detailed information to our customers, and release timely, up-to-date information to the media have been recognized by several state and national awards. To put it bluntly, we've changed the way we do business. We have decentralized our department, moving closer to the communities and customers we serve through Transportation Service Centers (TSCs). We've also streamlined processes to improve efficiency and increase our level of customer service.

Michigan's economic and population growth along with the love of the automobile will continue to increase the demand for transportation services. At the same time, an aging population means shifts in travel patterns and basic mobility issues. The increased flow of trade as a result of the North American Free Trade Agreement and just-in-time delivery demands will lead to increased freight and truck vehicle miles of travel, and will expand our needs for intermodalism.

There will never be enough money available to address every improvement we would like to see. But by setting goals, investing wisely, and monitoring the system's performance to ensure our investments are paying off, transportation agencies can make the best use of their limited resources.

Through it all, MDOT pledges not to lose sight of the economic and security issues now facing our nation. Our job is not just to build and maintain roads. It is to make wise transportation investment decisions on behalf of our "stockholders," the taxpayers of Michigan.