I-70 Second Tier Environmental Studies

1-70 is the most important transportation corridor in Missouri, connecting the state's two largest cities and carrying more rural daily traffic than any other rural route. The interstate has been an engine for nearly 50 years of economic growth and prosperity.

But today, many portions of I-70 are strained beyond capacity, increasing delays and air pollution and dampening economic activity. Deteriorating pavement and poorly functioning interchanges compound the problem and make travel on I-70 a daunting experience. And the problems are not exclusive to the metropolitan areas. By the year 2030, all sections of I-70 are expected to operate at unacceptable levels of service – meaning unstable traffic flow, stop-and-go conditions and traffic volumes over the roadway's capacity.

The safety and economic prosperity of Missourians depends, in part, on an I-70 that grows along with the state and nation. That's why the Missouri Department of Transportation is working now to develop a plan for the future of I-70.



What is Improve I-70?

Improve I-70 is an umbrella term used to describe seven closely coordinated but independent studies taking place between Independence and Lake St. Louis. The studies are analyzing the potential impacts of widening and reconstructing the interstate in seven distinct geographic areas. The studies will consider engineering, environmental and community issues and result in decisions about the location and basic configuration of I-70 widening and reconstruction improvements. Comprehensive public involvement and thorough environmental documentation will be completed during these studies. Expected to be complete in 2005, results of Improve I-70 will allow improvements to proceed to the next step – detailed design and construction.

History

In 1999, the Missouri Department of Transportation conducted a feasibility study to document the condition of Interstate 70 between the metropolitan areas of Kansas City and St. Louis. The study evaluated how the facility performs and how it might operate under future transportation demands. Recognizing that I-70 in its current state could not address future needs, the study established a tiered approach for determining what improvements were needed and where they should be located.

The first tier began in January 2000 with the I-70 Improvement Study. This effort took a wide view of the interstate and considered seven improvement strategies that could be applied across the corridor. They included:

- No Build doing nothing more than regular repair and maintenance (this strategy provided the baseline against which other strategies were evaluated);
- Transportation System Management/Transportation
 Demand Management (various measures such as ramp metering and ride sharing);
- 3) Widening and Reconstructing the Existing Interstate;
- 4) Building a New, Parallel Facility;
- 5) Building a New, Parallel Toll Road;
- 6) High Occupancy Vehicle Lanes; and
- 7) Introducing High Speed Rail.

After extensive technical analysis and consideration of public input, the study concluded in December 2001 by identifying widening and reconstructing existing I-70 as the recommended approach to improving the corridor.

Launched in 2002, Improve I-70 is a continuation of these earlier efforts, and begins the second tier of environmental studies. These studies will ensure that the widening and reconstruction improvement strategy is implemented in a way that's sensitive to the needs of local communities.

Widening & Reconstruction

Seven Studies

Each of the improvement strategies considered in the previous study had some benefit. However, the widening and reconstruction strategy presented the best balance of benefits and impacts. This strategy:

- Meets the long-term travel and safety needs for the corridor;
- Responds to public concerns (widening favored over other options by two-to-one);
- Reinvests in the existing system and preserves it by replacing existing I-70 pavement;
- Has lower annual operations and maintenance costs;
- Can be built in usable increments, yielding earlier benefits;
- Incorporates high-tech improvements (weigh-in-motion for freight carriers, highway advisory radio, remote weather sensors, variable message signs); and
- Improves incident management.

improvements while maintaining four lanes of traffic at all times. This alone has a tremendous benefit for the traveling public, and reduces user costs during what is sure to be a long and difficult construction process. The widening and reconstruction strategy will safely accommodate cars and trucks, allow for future options in the median and provide superior ability

to manage traffic dur-

ing an accident.

Additionally, this

strategy will allow

MoDOT to construct

With a corridor-wide improvement strategy identified, MoDOT can now take a more detailed look at how to apply the strategy on a local level. That's the task of seven independent studies taking place between Independence and Lake St. Louis. The studies will consider how to widen and reconstruct I-70 while balancing environmental concerns and community needs. A comprehensive and extensive public involvement program will be employed to ensure that study decisions are made collaboratively with the communities I-70 serves. More information and detail about the seven studies can be found on the back cover, and on the project web site at www.improveI70.org.

*Drawings not to scale

Future*

Existing Right-of-Way
Varies (250 to 300 feet typical)

*Drawings not to scale

40' Median

Proposed Right-of-Way
Varies (400 to 500 feet typical)

*Drawings not to scale

120' - 130' median

*Drawings not to scale

In general, MoDOT's plans for improving I-70 include widening the route to six lanes, either to the north or south of the existing alignment, and reconstructing the highway literally from the ground up. Additionally, all interchanges in the corridor will be reconstructed, and where possible, continuous frontage roads will be built.



Questions & Answers

How much will I-70 improvements cost?

Currently no funding is allocated for the design or construction of any major I-70 improvements. However, it is estimated that as much as \$3 billion, in today's dollars, would be needed to complete the widening and reconstruction strategy on I-70. These improvements could take place in manageable increments over many years with appropriate funding. Without an increase in funding, ultimate improvements to I-70 may never be affordable to Missouri and tough decisions will need to be made regarding what we can do with the money we have.

Why conduct these studies if there's no money to make the improvements?

I-70 has immediate needs that must be met. In doing so, MoDOT must ensure that dollars spent today are not wasted tomorrow. The Improve I-70 studies will develop both a long-term vision and a short-term plan to guide our immediate actions on I-70. These together will ensure that improvements made in the coming years are in sync with the ultimate facility.

Additionally, studies like these ensure that decisions about transportation investments are made in an open, collaborative way while balancing environmental issues and community concerns. The studies are required by the federal government and must be completed before improvements can be made. Study results also will help communities and potentially affected businesses and property owners plan for their future.

Couldn't the money spent on these studies be better used by making improvements to 1-70?

The Improve I-70 studies will cost approximately \$15 million over the next three years. The time and resources spent now will mean substantial savings in the long run, as any short-term improvements can be made within the framework of the ultimate facility. MoDOT has spent \$87 million on the rural portions of I-70 in the past five years and will continue to spend what it can to maintain its pavement and bridges. At a minimum, in the coming years motorists will see continued resurfacing projects and installation of guard cable barriers in the median to improve safety.

Could you pay for I-70 improvements by making it a toll road?

Tolling I-70 could provide some money toward the project, although it would not provide enough for construction. MoDOT currently does not have constitutional authority to operate toll roads.

When will I-70 improvements be made?

Ultimately, the timeline for implementing I-70 improvements depends on the availability of state and federal funds. Normal maintenance, repairs and safety upgrades across the state will be made on an ongoing basis as funding allows. Depending on funding, long-term improvements (the ultimate widening and reconstruction) could take from 10 to 30 years or longer to complete once started.

Is there something that could have been done to prevent I-70's deterioration?

The deterioration of I-70 is the result of wear and tear and time, not neglect. The newest stretch of I-70 is 37 years old. The oldest stretch is 46 years old. The original design life of the interstate was 20 years. The Missouri Department of Transportation has been able to extend the effective life of this highway through ongoing care and maintenance.

I see re-paving work all the time. How can the pavement be in such bad shape?

The work you see being conducted on I-70 is part of the ongoing maintenance and repair of the facility. A highway, though, is like any other structure. In addition to having surface characteristics, it has an infrastructure, similar to a home's foundation. The work you see on much of I-70 is similar to repairing the bricks or shingles of your home. Improve I-70 efforts will consider what is below the surface - the foundation of I-70.

Why is there such a wide median with the selected improvement strategy?

The wide median, as proposed for rural portions of the corridor, is there first and foremost because it enables staged construction that would provide four lanes of

traffic - as there is now - at all times. The wide median offers other benefits. It will be safer, allowing vehicles that enter the median ample space to recover. It also preserves the corridor for future expansion and other transportation options.

Would four-lane improvements to Route 36 and Route 50 mean improved travel on I-70?

MoDOT's plans include four-lane improvements to Routes 36 and 50, however, current funding levels do not make these projects a high priority. Even if these projects were completed, they would only slightly improve conditions on I-70. Traffic models developed during the first tier study showed that even as four-lane facilities, 36 and 50 would not draw enough traffic off I-70 to improve travel conditions. Furthermore, I-70's deteriorating foundation and substandard interchanges would still need to be addressed.

How will you build continuous frontage roads through developed communities?

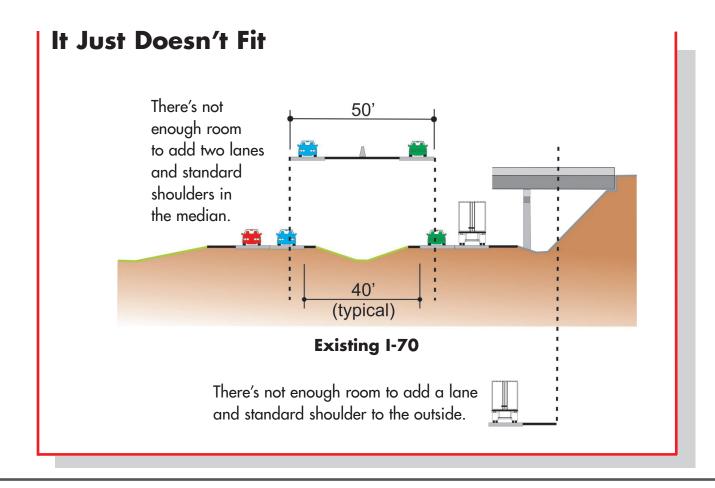
When we talk about continuous frontage roads, we are

actually talking about a system that will improve incident management and provide an option for local traffic. In many communities, the frontage road system will tie into existing roads and streets.

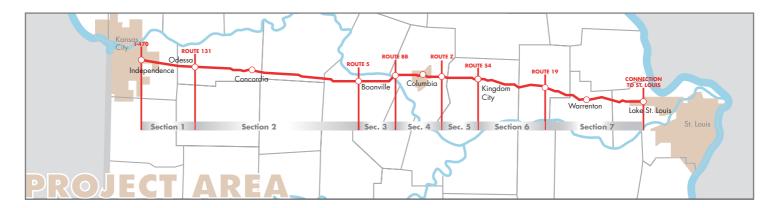
Why not put extra lanes in the median – or to the outside of the existing lanes?

There simply isn't room. The existing median on I-70 across the state varies, but in most places is 40 feet or less. To accommodate two lanes, standard shoulders and a median barrier, a minimum of 50 feet would be needed. Widening to the outside has similar problems in that new lanes cannot be squeezed between existing ones and bridge piers at interchange areas.

Ultimately, widening to the center or outside would still result in a facility that does not meet current safety standards (which call for a minimum 60-foot median). MoDOT and the Federal Highway Administration agree that any major investments in I-70 must result in a facility that meets current standards.



Local Focus



Improve I-70 studies will be conducted in seven distinct geographic areas. These seven areas are known as Sections of Independent Utility (SIU) because they have boundaries that allow improvements to be usable and reasonable even if no additional improvements in the area are made. Breaking the second tier environmental studies into smaller pieces also allows MoDOT to complete this phase more efficiently.

Each study will collect information and data to determine how and where I-70 could be widened and reconstructed. In general, widening will occur to the north or south of the existing route, with relocation options being considered in the Columbia area, and in the Warrenton/Wright City/Wentzville area. Alternative alignments for the main line roadway and various interchange design options will be developed and shared with the public. These improvement alternatives will be evaluated according

to engineering, environmental and social factors, and a preferred alternative will be identified.

Selecting a preferred alternative will require a balance of environmental concerns and community needs in each SIU. Comprehensive public involvement and thorough environmental documentation will be completed so that sound and collaborative decisions can be made.

Each study has its own process and timeline. However, all are expected to wrap-up by 2005. The studies will result in all the necessary documentation and environmental clearances needed to proceed to the next step – detailed design. The design phase will determine the exact location and right-of-way needs of I-70 improvements. Of course, actual construction of the improvements depends on funding. Currently, no funding is allocated for design or construction.

Get Involved

Public participation will be critical to Improve I-70. A number of public meetings and hearings will take place over the course of the project, along with small group meetings, workshops, committees and other efforts. But public input won't be limited simply to meetings. The project web site provides a 24-hour-a-day, seven-day-a-week opportunity to provide your thoughts, ideas, questions and concerns. You also may offer your comments via e-mail, regular mail or the telephone hot line.

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