FHWA-MO-EIS-10-01-F

First Tier Environmental Impact Statement for Route I-70, Jackson County, from the end of the last ramp termini east of the Missouri and Kansas state line to east of the I-470 interchange, including the entire Kansas City, Missouri's Downtown Central Business Freeway Loop
Job Number J4I1486B

FIRST TIER CONDENSED FINAL ENVIRONMENTAL IMPACT STATEMENT

Submitted Pursuant to
42 U.S.C. 4332(2)(c), 49 U.S.C. 303
by the

U.S. Department of Transportation
Federal Highway Administration and the
Missouri Department of Transportation

12/16/10		DIRECTOR
Date of Approval	For MoDOT	Title
12/16/10		Division Administrator
Date of Approval	For FHWA	Title

The following persons may be contacted for additional information about this document:

Ms. Peggy Casey
Program Development Team Leader
Federal Highway Administration, Division Office
3220 West Edgewood, Suite H
Jefferson City, MO 65109
(573) 636-7104

Mr. Kevin Keith
Director of Transportation
Missouri Department of Transportation
P. O. Box 270
Jefferson City, MO 65102
(573) 751-4622

This I-70 First Tier Condensed Final Environmental Impact Statement (EIS) documents the human and natural environmental effects of potential strategies for improving I-70 on the Missouri side of the Kansas City Metro Area. The document contains a Preferred Strategy that consists of the elements of the Improve Key Bottlenecks Strategy in the Kansas City Downtown Loop and extending along I-70 to east of I-435. From east of I-435 to I-470, the Preferred Strategy is to include either the Improve Key Bottlenecks Strategy or the Add General Lanes Strategy. This decision will be left open to the Second Tier studies.

Comments on this document should be directed to the individuals listed above by: February 18, 2011.

I-70 FIRST TIER Condensed Final EIS

Table of Contents

Executive Summary ES-1
1.0 Purpose and Need 1-1
2.0 Alternatives Considered 2-1
2.1 Initial Strategy Development 2-1
2.2 First Tier Strategies Development 2-1
2.3 First Tier Strategies Traffic Modeling 2-5
2.4 Evaluation Process for First Tier Strategies 2-5
2.5 The Preferred Strategy 2-5
2.6 Changes and Clarifications to the Draft I-70 FTEIS 2-8
3.0 Affected Environment and Environmental Consequences 3-1
3.1 Environmental Consequences 3-1
3.1.1 Land Use 3-1
3.1.2 Community and Neighborhood Effects 3-2
3.1.3 Parks and Recreation Facilities 3-2
3.1.4 Relocations 3-3
3.1.5 Environmental Justice 3-3
3.1.6 Economics 3-5
3.1.7 Visual Effects 3-5
3.1.8 Hazardous Materials 3-6
3.1.9 Historic and Archaeological Resources 3-7
3.1.10 Noise 3-8
3.1.11 Air Quality 3-9
3.1.12 Groundwater, Drainage, and Surface Water Quality 3-10
3.1.13 Floodplains, Streams, and River Crossings 3-10
3.1.14 Wetlands 3-11
3.1.15 Wildlife, Plants, and Threatened and Endangered Species 3-11
3.1.16 Farmland and Soils 3-12
3.1.17 Energy 3-12
3.1.18 Utilities 3-13
3.1.19 Indirect and Cumulative 3-13
3.1.20 Joint Development 3-14
3.1.21 Relationships 3-14
3.1.22 Irreversible and Irretrievable Commitments of Resources 3-15
3.1.23 Construction Impacts 3-15

3.2 Changes and Clarifications from the Draft FTEIS 3-15
3.2.1 Parks and Recreation Facilities 3-15
3.2.2 Relocations 3-16
3.2.3 Environmental Justice 3-17
3.2.4 Hazardous Materials 3-17
3.2.5 Air Quality 3-19
3.2.6 Floodplains, Streams, and River Crossings 3-21
3.2.7 Wetlands 3-21
3.2.8 Wildlife, Plants, and Threatened and Endangered Species 3-22
3.2.9 Indirect and Cumulative 3-23
4.0 Public Comments and Coordination 4-1
5.0 List of Preparers and Reviewers 5-1
6.0 Circulation List 6-1
7.0 List of Acronyms 7.1
8.0 References 8-1

List of Figures

Figure 1.1 Study Area Map ..... EOC
Figure 1.2 Fatal Crash Locations in the Study Area 2005 to 2009 1-4
Figure 2.1 Improve Key Bottlenecks Strategy ..... EOC
Figure 2.2 Add General Lanes Strategy ..... EOC
Figure 2.3 Preferred Strategy ..... EOC
Figure 2.4 Proposed Sections of Independent Utility (SIU) ..... EOC
Figure 3.1 Environmental Map ..... EOC

(EOC - End of Chapter)

List of Tables

Table 1.1 I-70 FTEIS Crash Rate Summary 1-6
Table 2.1 Recommended SIUs 2-8
Table 3.1 Houses for Sale within Zip Codes Located in the Study Area 3-16
Table 3.2 Hazardous Waste Sites in the Study Area 3-18
Table 3.3 National Ambient Air Quality Standards (NAAQS) as of June 3, 2010 3-20
Table 4.1 Public Meetings 4-4

Appendices

Appendix A Disclaimer
Appendix B Crash Data
Appendix C Sections of Independent Utility Technical Memorandum
Appendix D Public and Agency Coordination Documents

EXECUTIVE SUMMARY

The Missouri Department of Transportation (MoDOT) and the Federal Highway Administration (FHWA) prepared this Final First Tier Environmental Impact Statement (FTEIS) to discuss and compare strategies for improving I-70 in Kansas City Metropolitan Area.

This document is a Condensed Final FTEIS, which highlights key issues and changes since the Draft FTEIS (March 2010) and refers the reader to the Draft FTEIS for background information.

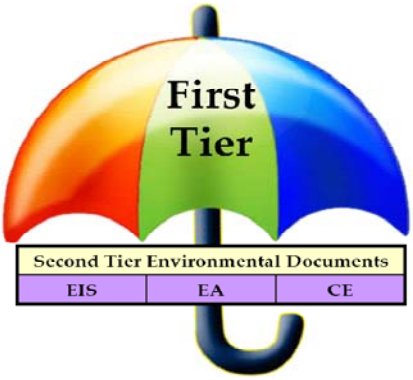
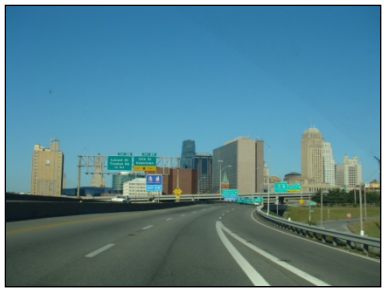


Illustration of the Tiered Environmental Process. The First Tier Study covers a corridor that will be broken down into multiple future Second Tier environmental studies.

What is the I-70 First Tier Environmental Impact Statement?

Under the National Environmental Policy Act (NEPA), FHWA requires an environmental study before a major highway project can be constructed. NEPA promotes efforts that prevent, minimize, or mitigate damage to the environment. An Environmental Impact Statement (EIS) is the documentation of the project's impact to the human and natural environment.



I-70 Leading into Downtown Kansas City, Missouri

This I-70 environmental study is following a tiered environmental documentation process. Tiering complies with NEPA requirements and other environmental regulations. First Tier documents address broad programs or overall corridor strategies and issues in an initial, high level environmental impact analysis. The tiered process enables a decision-making process that focuses on issues that are ready for decision and reduces repetition in environmental documents. First Tier documents frame and narrow the boundaries and scope for multiple future Second Tier Studies.

For the Second Tier Studies, the portion of I-70 covered by this FTEIS as well as the downtown loop will be divided into Sections of Independent Utility. At this time, the proposed Sections of Independent Utility are the five Sub-Areas in **Figure 2.4** at the end of **Chapter 2**.

What is the I-70 FTEIS Study Area?

The I-70 FTEIS Study Area is located entirely in Jackson County, Missouri. The Study Area is approximately 18 miles in length from the end of the last ramp termini east of the Missouri and Kansas state line to east of the I-470 Interchange, including the downtown loop. I-70 is a four- or six-lane divided and fully access-controlled interstate facility. The Study Area includes all land within 100 feet of the existing highway right of way along the corridor and within 300 feet of the existing highway right of way at interchanges along I-70.

What is the downtown loop?

The downtown loop is the combination of I-70, I-35, I-29, and I-670 that form a circle or "loop" around the downtown area.

An expanded Study Area consisting of 1,000 feet on either side of the highway including the downtown loop is being evaluated for land use and socioeconomic studies. The extended Study Area is needed for land use and socioeconomic evaluations to properly assess the potential impacts.

The I-70 FTEIS Study Area is shown in **Figure 1.1** located at the end of **Chapter 1**.

What is a bottleneck?

A bottleneck is a section of a road where movement of traffic is limited by the road design. This is often a section of road with a fewer number of lanes, a sharp curve, or traffic joining the road at an interchange. A bottleneck is the most vulnerable point for congestion in a road network and is also referred to as a chokepoint.

Why is MoDOT Studying I-70 in the KC Metro?

The overall purpose of the I-70 FTEIS is to determine an improvement strategy for the corridor, including future capacity and mode choices, which addresses the following items:

Congestion on I-70 Eastbound at Lister

- Improve Safety: Reduce crash rates and crash severity on I-70 and within the downtown loop.
- Reduce Congestion: Remove key bottlenecks; reduce the potential for ramp back-up onto the freeway; and improve multi-modal travel times in coordination with plans put forward by local and regional agencies.
- Restore and Maintain Existing Infrastructure: Improve bridge and pavement conditions on I-70 and the downtown loop and implement cost-effective investment strategies.
- Improve Accessibility: Provide travel options for all residents; increase safe access across I-70 and the

downtown loop for non-motorized travel; and support local and regional land use plans.

- Improve Goods Movement: Improve the efficiency of freight movement on I-70 and the downtown loop.

The Study Team developed the elements of the purpose and need in coordination with the Local Study Management Team and I-70 Major Investment Study (MIS). Each of the above elements of the purpose and need for improvements is discussed in more detail in **Chapter 1** of the **Draft FTEIS**.

What Strategies did the Study Team Consider for Improving I-70?

MoDOT and FHWA worked with the local agencies, stakeholders, and the public to develop, refine, and evaluate improvement strategies for I-70 and the downtown loop.

The Study Team combined various concepts to develop 15 Initial Strategy Packages. The Strategy Packages were based on initial engineering and environmental analysis, Mid-America Regional Council's (MARC) Congestion Management System (CMS) toolbox, as well as comments and feedback from the local agencies, stakeholders, and the public. The first seven strategy packages evolved from the previously completed I-70 MIS. Eight other packages were focused, goal oriented strategy packages meant to address specific needs or issues along I-70.

The 15 Initial Strategy Packages were evaluated against the purpose and need for improving I-70:

- Improve Safety
- Reduce Congestion
- Restore and Maintain Existing Infrastructure
- Improve Accessibility
- Improve Goods Movement

Chapter 2 of the **Draft FTEIS** provides a summary of each of the Initial Strategy Packages.

What is meant by improvement strategies?

Improvement strategies are general, high level transportation improvement opportunities to address the transportation issues along I-70. Improvement strategies may include a series of specific transportation improvements such as adding lanes, fixing existing pavement and bridges, improving interchange ramps, and/or transit projects.

Who is the Study Team?

The Study Team is the people who have been working on this project including specialists from the FHWA, MoDOT, and the consultant team.

What is a First Tier Strategy?

A First Tier Strategy is one of four strategies that is carried forward from the 15 initial strategies for more detailed evaluation.

What are the Four First Tier Strategy Packages?

The Study Team screened the 15 Initial Strategy Packages down to four First Tier Strategies.

The Study Team also considered engineering issues and impacts to the human and natural environments. The complete memorandum discussing the screening process is located in the **Draft FTEIS** in **Appendix C**.

Why is the No-Build Considered?

The No-Build Strategy is required in the NEPA process and is always an option in case the benefits of improvements to I-70 do not outweigh the environmental impacts.

The screening process resulted in four strategy packages being carried forward. The recommended packages include:

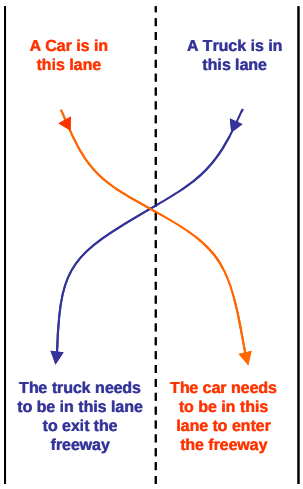
- No-Build Strategy (This is a requirement of the NEPA process)
- Improve Key Bottlenecks Strategy
- Add General Lanes Strategy
- Transportation Improvement Corridor Strategy

Chapter 2 provides information on the First Tier Strategies; the following paragraphs provide a summary.

No-Build Strategy

The No-Build Strategy includes maintenance activities as needed and projects already committed as part of existing Statewide Transportation Improvement Program (STIP).

What is a weave section?



The car and truck must cross the other traffic to get to the lane they want to be in.

Improve Key Bottlenecks Strategy

The Improve Key Bottlenecks Strategy includes the activities from the No-Build Strategy described above. The Improve Key Bottlenecks Strategy is discussed in **Section 2.2 First Tier Strategies Development** and is shown in **Figure 2.1**.

The key elements from the Improve Key Bottlenecks Strategy include activities such as:

- Rebuild and/or rehabilitate I-70 and the entire downtown loop with a design life of 30 to 50 years
- Downtown loop lane balance improvements
- Improve interchanges by addressing ramp lengths, merge areas, weave sections, and bicycle/pedestrian access

- Consider interchange additions, consolidations, modifications, or eliminations to improve traffic flow and safety
- Improve the Jackson and Benton curves
- Rebuild the I-70/I-435 Interchange to provide six lanes on I-70 and six lanes on I-435 through the interchange
- Add collector distributor roads on I-70 and I-470 through the I-70/I-470 Interchange
- Integrate Operation Green Light on parallel routes
- Coordinate with Smart Moves Regional Transit Vision
- Improve incident management response times
- Enhance I-70 express bus service, provide for bus transit on shoulder, and explore locations to add park and ride lots as necessary

Add General Lanes Strategy

The Add General Lanes Strategy includes the activities from the Improve Key Bottlenecks Strategy described above. The Add General Lanes Strategy is discussed **Section 2.2 First Tier Strategies Development** and is shown in **Figure 2.2**. The key elements from the Add General Lanes Strategy include activities such as:

- Rebuild and/or rehabilitate I-70 and the entire downtown loop with a design life of 30 to 50 years
- Rehabilitate and/or rebuild I-70 with four lanes in each direction from the downtown loop to I-470
- Downtown loop lane balance improvements
- Improve interchanges by addressing ramp lengths, merge areas, weave sections, and bicycle/pedestrian access
- Consider interchange additions, consolidations, modifications, or eliminations to improve traffic flow and safety
- Improve the Jackson and Benton curves
- Upgrade the Truman Road Interchange
- Rebuild the I-70/I-435 Interchange to provide eight lanes on I-70 and six lanes on I-435 through the interchange
- Add collector distributor roads on I-70 and I-470 through the interchange
- Integrating Operation Green Light on parallel routes
- Coordinate with Smart Moves Regional Transit Vision
- Improve incident management response times

What does lane balance mean?

A lane balance issue occurs when the number of through lanes on the highway changes, usually as a result of a lane drop. An example of this is I-70 westbound at I-435.

What is Operation Green Light?

Operation Green Light is a cooperative effort to improve the coordination of traffic signals and incident response on major routes throughout the Kansas City area.

What are High Occupancy Vehicle (HOV) lanes?

HOV lanes are exclusive lanes for vehicles with two or more occupants. HOV lanes are physically separated by a barrier, striping, or signing from the adjacent regular lanes that are utilized by cars, buses, and freight trucks.

- Enhance I-70 express bus service, provide for bus transit on shoulder, and explore locations to add park and ride lots as necessary
- Add directional ramps in the southeast and southwest corners of the downtown loop

Transportation Improvement Corridor Strategy

The Transportation Improvement Corridor Strategy includes all of the parts of the Improve Key Bottlenecks Strategy plus it adds a dedicated transportation corridor between the downtown loop and I-470. The transportation improvement corridor could be located between the eastbound and westbound lanes or on one side of the I-70 corridor. As currently proposed, the transportation improvement corridor would be barrier separated from the regular traffic lanes. The transportation improvement corridor could be used for congestion managed lanes, reversible lanes, High Occupancy Vehicle (HOV) lanes, or bus lanes.

Congestion at Jackson Curve

The Transportation Improvement Corridor Strategy as discussed in **Section 2.2 First Tier Strategies Development** and shown in **Figure 2.6** of the **Draft FTEIS,** includes activities such as:

- Rebuild and/or rehabilitate I-70 and the entire downtown loop with a design life of 30 to 50 years
- Add dedicated lanes that could be used for congestion managed lanes, reversible lanes, HOV lanes, or bus lanes located parallel to the general purpose lanes from the downtown loop to east of Lee's Summit Road
- Downtown loop lane balance improvements
- Improve interchanges by addressing ramp lengths, merge areas, weave sections, and bicycle/pedestrian access
- Consider interchange additions, consolidations, modifications, or eliminations to improve traffic flow and safety
- Improve the Jackson and Benton curves
- Rebuild the I-70/I-435 Interchange to provide a transportation improvement corridor on I-70 and six lanes on I-435 through the interchange
- Add collector distributor roads on I-70 and I-470 through the interchange

- Enhance I-70 express bus service, provide for bus transit on shoulder, and explore locations to add park and ride lots as necessary

What is the Preferred Strategy?

The Study Team has proposed a Preferred Strategy to move forward. The I-70 FTEIS Preferred Strategy is the Improve Key Bottlenecks Strategy from the downtown loop to east of I-435. The Preferred Strategy from east of I-435 to I-470 is either the Improve Key Bottlenecks Strategy or the Add General Lanes Strategy. Additional information and analysis is necessary and the determination of which strategy will be used will be made in the Second Tier Studies. **Figure 2.3** provides a graphic explaining the Preferred Strategy. The Transportation Improvement Corridor Strategy was eliminated from consideration.

What is meant by Preferred Strategy?

The Preferred Strategy is the strategy that the Study Team has determined will best address the purpose for improving I-70 while minimizing the land-use, social, and environmental effects of the project. The Record of Decision (ROD) issued by the FHWA at the conclusion of the First Tier Study will formally select a strategy to move forward after comments on this Condensed Final FTEIS have been received.

The Study Team selected the Improve Key Bottlenecks Strategy from and including the downtown loop to east of I-435 for the following reasons:

- It addressed the key reasons for improving I-70 as identified in **Chapter 1**.
- It reduces peak hour congestion to level of service (LOS) E or better.
- It has the lowest need to acquire properties and relocations of homes and businesses, especially in the areas with low income and minority populations for the Build Strategies.
- It has the lowest human and natural environmental impacts for the Build Strategies.
- It has the lowest estimated cost of the Build Strategies.
- It improves access across the freeway.
- It improves transit service with bus on shoulder.
- It restores and/or rebuilds the existing infrastructure.

Traffic analysis indicates a need for additional capacity on I-70 from east of I-435 to I-470, however, there are several factors that make this conclusion uncertain between now and 2030. The factors and issues leading to this decision include:

- Uncertainty in how much traffic levels are going to grow. With higher gas prices, there have been reductions in national and regional vehicle miles traveled in recent years.
- Uncertainty of the effect of implementation of the Mid-America Regional Council's adopted 2040 Long Range Transportation Plan and its impact on growth patterns.
- Uncertainty of the Add General Lanes Strategy compatibility with future regional transit plan investments such as a fixed guide way system. Improving capacity in the I-70 corridor could potentially be solved by either adding new lanes to I-70 or through regional transit improvements. However, a significant investment to both potential highway and transit solutions is not necessary. If the region, supported by regional transit plans, concludes a significant transit investment would adequately address the traffic needs in the I-70 corridor, MoDOT, working with the region, would reevaluate the decision in the tiered environmental process.
- Potential federal climate change and vehicle emissions legislation. Congress is considering legislation that may focus transportation improvements on those that reduce driving instead of those that add capacity.
- Delaying the final improvement decision until the Second Tier studies will be a cost effective use of public resources given the uncertainties noted above. This strategy avoids committing to a solution that may be undesirable given future policy changes and thus requiring reopening this First Tier study.

The I-70 FTEIS provided environmental evaluation for the wider of the two footprints (Add General Lanes Strategy) to ensure appropriate environmental impact analysis is conducted.

Since the Draft FTEIS was published a minor change in the broad footprint used to estimate the effects of the Preferred Strategy occurred. Between Truman Road and 18th Street a jog in the I-70 corridor will be straightened resulting in an additional 1.49 acres of right-of-way.

The Transportation Improvement Corridor Strategy was eliminated from further consideration. The option to stripe a HOV/Bus lane will be carried forward with the Add General Lanes Strategy.

Southwest corner of loop looking at Downtown

How will the Strategies Affect the Human and Natural Environment?

Chapter 3 of this Condensed Final FTEIS presents a summary of the existing social, cultural, economic, and natural environment of the Study Area. It also provides a summary of the impacts associated with the Preferred Strategy. The summary impacts are shown in **Table ES.1** at the end of this chapter. The following paragraphs briefly highlight key impacts that changed from the Draft FTEIS.

Single-family Residential

Relocations of Homes and Businesses

The Study Team completed a new search of the multiple listing service (MLS) operated by the National Association of Realtors to provide more current data on houses for sale in the zip codes contained within the Study Area.

Based upon the updated data from the MLS, the number of homes for sale in the zip codes within the Study Area has decreased from 1,629 in March 2009 to 1,496 in June 2010. The majority of the houses currently for sale are in the $50,000-$100,000 price range and have two or three bedrooms.

Salvation Army

Environmental Justice

While no changes were made since the Draft FTEIS that impact areas with low income and minority populations, based on comments received on the Draft FTEIS, MoDOT clarified that the No-Build Strategy is expected to result in reduced LOS and increased congestion throughout the entire Study Area, not only through the identified areas with low income and minority populations. The potential decrease in air quality would not be disproportionately high on minority and low-income populations.

Manchester Village Mobile Home Park

Hazardous Materials

The Draft FTEIS identified five hazardous waste sites within the Study Area. The Missouri Department of Natural Resources (MoDNR) provided additional information on the City Environmental site referenced in the Draft FTEIS. The MoDNR stated that the City Environmental site is no longer an active Hazardous Waste Treatment Storage or Disposal Facility (TSDF) site.

City Environmental, Inc. TSDF

The MoDNR also requested that the Beazer East hazardous waste facility (former Koppers Wood Treating Facility) be included in the list of hazardous waste sites within the Study Area. Wood treating was performed at this facility for decades. A considerable amount of contaminated soil has been removed from the property, and groundwater contamination remains (Environmental Protection Agency (EPA), 2003). While the building and address of this site fall outside of the study corridor, the Beazer East property does extend into the Study Area and is shown on **Figure 3.1**.

What is an attainment area?

An attainment area is a geographic area with air quality that meets or exceeds the National Ambient Air Quality Standards (NAAQS).

Air Quality

The Kansas City area air quality monitoring region is currently designated as a maintenance area for ozone. This area includes Platte, Jackson, and Clay Counties in Missouri. The EPA is currently in the process of identifying areas that may no longer be in attainment of the current (2008) standard for ozone concentration levels. In January 2010, the EPA extended the deadline for designations of areas as attainment, non-attainment, or maintenance areas with respect to the 2008 standard for ozone. The new deadline is March 2011 (EPA, 2010a). It is possible that the Kansas City region's attainment status for ozone may be removed because it exceeds the current standard for ozone and more stringent standards for 8-hour ozone concentrations. Second Tier Studies will need to address the project's effect on potential air quality non-attainment issues for the region.

Blue River Floodplain less than a mile west of I-435

Floodplains, Stream, and River Crossings

The 100-year floodplain map provided for the Blue River I-70 Bridge crossing less than a mile west of I-435 may be outdated.

The U.S. Army Corps of Engineers (USACE) Blue River Channelization Project has significantly changed the 100-year floodplain at the I-70 Bridge crossing.

The City of Kansas City, Missouri reports that the Blue River Channelization Project in the vicinity of the I-70 Bridge crossing is complete. However, the updates to FEMA Flood Hazard maps are not available. The reduced floodplain was manually sketched onto **Figure 3.1** to represent the revised floodplain based on the Letter of Map revision (LOMR). The resulting potential floodplain impacts are estimated to be 21 acres for the Preferred Strategy, an increase of one acre compared to the estimate in the Draft FTEIS.

The final project must be designed to avoid all adverse effects to the Blue River Channelization Project. The Second Tier Studies will further develop the details of the Preferred Strategy to adhere to USACE requirements.

What is a "100-year flood?"

The phrase "100-year flood" is a short way of saying "a flood with a high degree of probability of occurring in any 100-year period". The 100-year flood is equivalent to a 1% flood and both are used interchangeably.

Little Blue River under I-70

Wetlands

The Preferred Strategy is estimated to affect 2.03 acres of wetlands. While no changes were made since the Draft FTEIS that impact wetlands, based on comments received on the Draft FTEIS, MoDOT confirmed that as the project continues into Second Tier environmental documentation and reaches the design phase, efforts will be made to avoid and minimize detrimental effects on wetland resources. The Study Team will adhere to the USACE permit process when the project advances to that point.

Indiana Bat

Wildlife, Plants, and Threatened and Endangered Species

The Indiana bat (*Myotis sodalist*) was added as a species that could potentially be found within the Study Area and one that must be reviewed in greater detail as part of the Second Tier environmental study. The Indiana bat inhabits forested areas along stream channels (riparian zone). FHWA and the U.S. Fish and Wildlife Service will complete consultation concerning all threatened and endangered species that may be adversely affected by the proposed project.

How did the Study Team Coordinate with the Public and Stakeholders?

Public Meeting

MoDOT developed a detailed Public Involvement and Agency Coordination Plan specifically for the I-70 FTEIS. The plan was circulated to potential participating agencies for review and comment. The plan was also posted on the project website for public review and comment. The plan has been updated on the website as needed during the course of the study. Detailed discussion of how MoDOT involved the public and stakeholders is contained in **Chapter 4**.

Agency Meetings

Mobile Meeting

MoDOT has held eight regular meetings with representatives from local stakeholder agencies such as:

- City of Independence, Missouri
- City of Kansas City, Missouri
- Kansas City Area Transportation Authority (KCATA)
- Mid-America Regional Council (MARC)

Stakeholders provided feedback on the strategies as they were developed and refined.

MoDOT also held three meetings with environmental agencies to discuss the environmental analysis procedures for the project and the anticipated affects of the project on the environment.

Listening Post

Public Information

MoDOT developed several ways for members of the public to learn more about the project. These included a project web site, a project phone number, project newsletters, a speaker's bureau, public meetings and listening posts, and other project interactive activities.

Public Meetings

MoDOT held two rounds of public outreach prior to the publication of the Draft FTEIS and one round prior to the

publication of this Condensed Final FTEIS. All meetings were held in an open house format for two to three hours and members of the public could stop by at any time during the meetings. The first round of public outreach was held during September 2008, which included two weekday evening open house public meetings and two Saturday morning neighborhood coffee meetings. The second round of public outreach was held in January 2009, which included an on-line public meeting and an open house public meeting. The third round was held in April 2010 and included two open house public hearings and an on-line public hearing. The comment period on the Draft FTEIS was April 1, 2010 to May 7, 2010. All substantive comments on the Draft FTEIS along with responses are included in **Appendix D.1**.

What is a Substantive Comment?

A substantive comment raises specific issues or concerns regarding the project or the study process. Comments that merely express support for or opposition to the project or a particular alternative are important but not a substantive comment requiring a response.

Mobile Meetings

In addition, MoDOT vinyl wrapped an existing 12-passenger van, provided a display tent, and backdrop to share information about the First Tier strategy packages with the community. The van was stationed for two hours at the following key events: Kansas City Chiefs Football Game on December 21, 2008; the Wal-Mart Super Center on Blue Ridge Boulevard in Independence, MO on January 9, 2009; Kansas City Royals Baseball Game on April 8, 2010 (mobile voice van not used); Metro Bus Stop at 31st and Prospect on April 9, 2010 (mobile voice van not used); River Market on April 17, 2010; Bass Pro Shops in Independence, MO on May 3, 2010. The Study Team circulated through the event location to speak with community members about the project and distributed "Contact Us" business cards.

Mobile Voice Van Event

What is a Speaker's Bureau?

The I-70 FTEIS Speaker's Bureau includes designated Study Team members who will attend neighborhood, business, and/or community meetings, by request, to discuss the I-70 FTEIS project.

Speakers Bureau

MoDOT also established a speakers bureau for the project. Study Team members were available to attend neighborhood, business, and community organization meetings by request. The Study Team sent an invitation letter to more than 30 organizations along the corridor inviting them to request a speaker. The Study Team also posted a speakers bureau request form on the project website. As of June 2010, Study Team members have presented at nine community group meetings.

What are the Next Steps for Improving I-70?

After this Condensed Final FTEIS is published, FHWA will approve a Preferred Strategy to move forward into the Second Tier Studies. The Preferred Strategy will be formerly selected in a Record of Decision (ROD).

For the Second Tier Studies, the I-70 FTEIS Study Area will be divided into Sections of Independent Utility for a more manageable, in-depth evaluation process. The Second Tier Studies will refine the right of way affected by the project in order to avoid, minimize, or mitigate the effects of the I-70 improvements where possible.

There are issues that do not affect the selection of the Preferred Strategy but will need to be resolved as part of the Second Tier Studies or subsequent design development. MoDOT is committed to the continued pursuit of resolving these issues.

Although the first tier process has laid the foundation for the continued study of the I-70 corridor and the downtown loop, the implementation schedule for I-70 improvements remains unresolved at this time.

MoDOT is committed to performing the Second Tier Studies in accordance with the recommendations contained within this First Tier EIS. These Second Tier Studies will be conducted through a continued and ongoing program of public outreach and agency coordination. Through the Second Tier Studies, more specific definitions of the improvements will be developed for consideration by the general public and the various environmental and community resource agencies. The Second Tier Studies will assess and study more specifically the following items:

<u>Corridor Wide</u>

- Layouts and impacts of the interchange improvements to address ramp lengths, merge and diverge lengths, and weave areas.
- Air Quality designation status throughout the MARC region.

- Relationship between MARC's regional long range transportation plan update (Transportation Outlook 2040) and I-70 FTEIS Preferred Strategy.
- Locations and types of Community Bridges.
- Noise studies as directed by MoDOT's Noise Policy. Noise was a specific issue brought forward as a potentially controversial issue from the public and stakeholder outreach efforts.
- Detailed wetland and threatened and endangered species investigations as needed.
- Detailed investigations for historic structures and archaeological resources.
- U.S. Army Corps of Engineers Section 404 permitting will be required on this project.

Quality Hill Historic District in the Downtown Sub-Area

Downtown Sub-Area

- Layouts and impacts of the interchange additions, consolidations, or eliminations throughout the downtown loop.
- Location and need to replace the Wyandotte Street ramp to westbound I-670.
- Coordination and impact of the South Loop Link Study.

Northside of the Downtown Loop

Urban Sub-Area

- Layouts and impacts of the interchange additions, consolidations, or elimination of access.

I-435 Interchange Sub-Area

- Layouts and impacts of the interchange improvements at the I-435 interchange including modification of access at Manchester Trafficway interchange.

Suburban Sub-Area

- Selection of the Improve Key Bottlenecks or Add General Lanes Strategy.
- Layouts and impacts of the interchange additions, consolidations, or elimination of access through the series of interchanges at the Sterling Avenue, U.S. 40, and Blue Ridge Boulevard interchanges.

I-70 at the Blue Ridge Cut-off

I-470 Interchange Sub-Area

- Layouts and impacts of the interchange improvements at the I-470 interchange.

What Changes and Clarifications Were Made to the Draft FTEIS?

On page ES-24 of the Draft FTEIS, the "**What are the Next Steps for Improving I-70?**" section indicated the following:

Urban Sub-Area

- Layouts and impacts of the interchange additions, consolidations, or elimination of access at the 18th Street intersection.

The text was revised to remove "at the 18th Street intersection" due to the fact that other intersections may also be impacted, not just the 18th Street Interchange.

On pages ES-5 through ES-7 of the Draft FTEIS, the descriptions of each first tier build strategy were revised to include "bicycle/pedestrian access" to the bullet lists of elements (see below).

- Improve interchanges by addressing ramp lengths, merge areas, weave sections, and bicycle/pedestrian access

Appendix C Initial Strategy Packages Summary Memorandum in the Draft I-70 First Tier EIS was missing its two appendices. The full Appendix C Initial Strategy Packages Summary Memorandum was reposted to the project web site as part of the Draft I-70 First Tier EIS.

Table ES.1 First Tier Strategy Package Impacts Summary

Achieved = 100% or highest benefit	Mostly Achieved = 80% or moderately high benefit	Moderately Achieved = 50% or moderate benefit	Slightly Achieved = 20% or low benefit	Not Achieved = 0% or no benefit

Evaluation Factor	Definition/Clarification	Indicators	Strategy Package				
			No-Build	Improve Key Bottlenecks	Add General Lanes	Transportation Improvement Corridor	Preferred Strategy*
Safety							
Crash Reduction	Evaluate with respect to reduction in crash rate	Addresses all or most of locations with crash rates above statewide average					
		Improves I-70 curves					
		Number of interchanges where geometrics are improved	3	10	19	17	17
Compliance with MoDOT Access Management Guidelines	Evaluate how well the proposed strategy package provides for the opportunity to implement access management guidelines						
Congestion Relief							
Traffic Operations/ Congestion Relief	Evaluate the strategies from a traffic operations standpoint based on Level of Service.	Miles of LOS F in 2030	Total 12.5 West of I-435 – 2.3 East of I-435 – 10.2	Total 6.2 West of I-435 – 0.5** East of I-435 – 5.7 **Can be corrected with a different bottleneck improvement	Total 0.0	Total 0.0	Total 6.2 West of I-435 – 0.5** East of I-435 – 5.7 **Can be corrected with a different bottleneck improvement
Restore/Maintain Existing Infrastructure							
Restore & Maintain Existing Infrastructure	Evaluate the corridor wide rehabilitation and/or rebuilding of existing highway either in place or as part of capacity expansion	Rehabilitates and/or rebuilds existing highway in place or as part of capacity expansion					
Improve Accessibility							
Improve Accessibility Across/Neighborhood	Evaluate how well strategy package improves neighborhoods and communities accessibility	Number of interchange and overpass reconfigurations	3	10	24	22	22
		Bicycle and/or pedestrian accommodations and/or improvements proposed					

Achieved = 100% or highest benefit	Mostly Achieved = 80% or moderately high benefit	Moderately Achieved = 50% or moderate benefit	Slightly Achieved = 20% or low benefit	Not Achieved = 0% or no benefit

Evaluation Factor	Definition/Clarification	Indicators	Strategy Package				
			No-Build	Improve Key Bottlenecks	Add General Lanes	Transportation Improvement Corridor	Preferred Strategy*
Improve Public Transportation	Evaluate potential for strategy package to improve public transportation	Adds park & ride					
		Support Operation Green Light					
		Integrate Smart Moves Transit Plan					
Improve Goods Movement							
Improve Goods Movement	Strategy package effectively serves freight movements in corridor	Improves Freight Movement					
Social and Economic							
Relocations	Evaluate the impact on residences and businesses to be displaced	Residential – Single family (each)	0	170	271	399	228
		Residential – Multi-family (each)	0	18	32	45	19
		Commercial/Industrial (each)	0	55	93	111	67
		Churches (each)	0	0	4	7	0
		Schools (each)	0	1	1	1	1
Environmental Justice	Evaluate the impact to low income and/or minority areas	Area of property affected (each)	0 Single Family 0 Multi-family	51 Single Family 5 Multi-family	95 Single Family 18 Multi-family	160 Single Family 28 Multi-family	51 Single Family 5 Multi-family
Public Facilities & Services	Evaluate the impact to facilities and services used for public uses	Number of facilities (each)	0	3	11	12	4
Environment							
Noise	Evaluate potential impact on existing sensitive receptors (residences, schools, churches, parks)	Proximity to sensitive noise receptor (number within 150 feet of proposed future edge of pavement)	664	465	335	282	414
Parks/Recreational Land	Evaluate potential impact on parks	Number of park/recreational lands affected (each)	0	5	8	8	5
Historic Property	Evaluate potential impact on historic properties	Number of historic properties impacted(buildings on or eligible for NRHP (each)	0	0	0	0	0
Historic Districts	Evaluate potential impact on historic district	Area of historic district impacted (each)	0	0	0	0	0
Archaeological Site	Evaluate potential impact to archeological sites	Number of potential archaeological locations (each)	0	7	9	9	9

Achieved = 100% or highest benefit	Mostly Achieved = 80% or moderately high benefit	Moderately Achieved = 50% or moderate benefit	Slightly Achieved = 20% or low benefit	Not Achieved = 0% or no benefit

Evaluation Factor	Definition/Clarification	Indicators	Strategy Package				
			No-Build	Improve Key Bottlenecks	Add General Lanes	Transportation Improvement Corridor	Preferred Strategy*
Water Resources	Evaluate potential impact to rivers and streams	Encroachment on the Blue River (*Fatal Flaw, Large, Moderate, Minor, None)*	None	Minor	Minor	Minor	Minor
		Number of streams/tributaries crossed (each)	0	8	10	10	10
Floodplains	Evaluate potential impact on floodplains	Area of floodplain affected (acres)	0	19 acres	21 acres	24 acres	21 acres
Wetlands	Evaluate potential impact on wetlands	Area of emergent wetland affected (acres)	0	0.9 acres	0.9 acres	0.9 acres	0.9 acres
		Area of forested/shrub wetland affected (acres)	0	0.48 acres	1.13 acres	1.09 acres	1.13 acres
Known Hazardous Waste Sites	Evaluate potential impact on known hazardous waste sites	Number of sites affected (each)	0	1	1	1	1
Forested Areas	Evaluate potential impact on forested areas	Area of sites affected (acres)	0	57 acres	69 acres	69 acres	69 acres
Cost							
Land Acquisition Cost	Opinion of probable land acquisition cost	Right of way cost (millions)	$0	$160	$185	$210	$157
Construction Cost	Opinion of probable construction cost	Total construction cost (millions)	$8.1 annual maintenance	$630	$735	$890	$633 - $673
Total Costs	Opinion of total cost	Total cost (millions)	$250	$790	$920	$1,100	$790 and $830 million depending on the scenario selected east of I-435

* The I-70 FTEIS Preferred Strategy is the Improve Key Bottlenecks Strategy from the downtown loop to east of I-435. The Preferred Strategy from east of I-435 to I-470 is either the Improve Key Bottlenecks Strategy or the Add General Lanes Strategy. The Preferred Strategy environmental evaluation is based on the wider of the two footprints (Add General Lanes Strategy) to ensure appropriate environmental impact analysis is conducted prior to the Second Tier studies. The exception is in the evaluation of the traffic operations/congestion relief factor where the Improve Key Bottlenecks Strategy would have less beneficial impact of the two strategies being considered.