

EXECUTIVE SUMMARY

Missouri Department of Transportation (MoDOT) and the Federal Highway Administration (FHWA) prepared this Draft Second Tier Environmental Impact Statement (EIS) to discuss and compare alternatives for improving I-70 in the Kansas City Metropolitan Area between The Paseo and Blue Ridge Cutoff. The Study Area is shown on **Figure 1-1 in Chapter 1 Purpose and Need**.

What is the I-70 Second 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 requires Federal agencies to consider potential environmental impacts of their proposals, document the analysis, and make this information available to the public for comment prior to implementation. NEPA promotes efforts that avoid, minimize, or mitigate damage to the environment. FHWA requires environmental studies for federal funded projects. An EIS is prepared for projects where the action is expected to have significant effect on the human and natural environment.

This I-70 Second Tier EIS study is following a tiered environmental documentation process. A First Tier EIS was completed in 2011 for I-70 from the end of the last ramp termini east of the Missouri and Kansas state line to the I-470 interchange. This Second Tier EIS covers the Urban and I-435 interchange Sections of Independent Utility that were identified in the First Tier EIS between The Paseo and Blue Ridge Cutoff. 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 EIS documents frame and narrow the boundaries and scope for multiple future Second Tier studies.

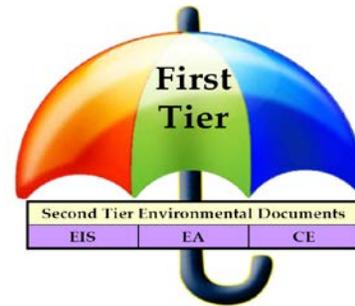


Illustration of the Tiered Environmental Process. The First Tier Study covers a corridor that will be broken down into multiple future Second Tier environmental studies.



Location of the Study Area



I-70 Leading into Downtown Kansas City, Missouri

What is the I-70 Second Tier EIS Study Area?

MoDOT and FHWA propose improving the existing I-70 corridor extending approximately 6.8 miles from the end of the last ramp termini west of The Paseo interchange to east of the Blue Ridge Cutoff interchange to meet the current and future traffic, safety, and access needs across and to/from I-70. It is entirely located within the City of Kansas City, Missouri. The Second Tier EIS was initiated under the guidelines outlined in Section 6002 of the transportation highway law known as Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and NEPA. Since the start of this study, a new transportation bill, (Moving Ahead for Progress in the 21st Century Act (MAP-21)) was signed into law July 6, 2012 and governs the Second Tier EIS study process.



**Congestion on I-70
Eastbound at Lister Avenue**

The I-70 Second Tier EIS evaluates the second tier improvement alternatives in the corridor to meet the current and future transportation needs while minimizing impacts to the human and natural environment. The I-70 Second Tier EIS evaluates alternatives that address travel demand and the overall performance of the corridor to safely move people and goods.

The I-70 Second Tier EIS Study Area is shown in **Figure 1-1** located at the end of **Chapter 1**.

Why is MoDOT Studying a Section of I-70 in the Kansas City Region?

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

- **Improve Safety:** Reduce crash rates and crash severity on I-70.
- **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.

What is meant by improvement alternatives?

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

- Restore and Maintain Existing Infrastructure: Improve bridge and pavement conditions on I-70 and implement cost-effective investment alternatives.
- Improve Accessibility: Provide travel options for all residents; increase safe access across I-70 for non-motorized travel; and support local and regional land use plans.
- Improve Goods Movement: Improve the efficiency of freight movement on I-70.

The Study Team developed the elements of the purpose and need in coordination with and through reviews by participating agencies, a community advisory group, and the public. Each of the above elements of the purpose and need for improvements is discussed in more detail in **Chapter 1 Purpose and Need**.

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

MoDOT and FHWA worked with local agencies, stakeholders, and the public to develop, refine, and evaluate 12 Initial Alternatives based on initial engineering and environmental analysis, MARC's Congestion Management Process (CMP) toolbox, and the First Tier EIS strategy. The 12 Initial Alternatives all related to the approved Improve Key Bottleneck Strategy from the First Tier EIS.

The 12 Initial Alternatives 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 provides a summary of each of the Initial Alternatives.

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 are cooperating and participating agencies?

Federal transportation bill, SAFETEA-LU, included two types of agencies for specific involvement in the preparation of environmental studies.

Cooperating Agencies are federal and state agencies with a specific expertise or authority (such as needing to issue a permit) for the project. There are no Cooperating Agencies currently designated on this project.

Participating Agencies are a wider group of government stakeholders. All federal, state, regional, and local government agencies that may have an interest in the project are invited to serve as participating agencies.

What are the Second Tier Alternatives?

The Study Team screened the 12 Initial Alternatives down to three Second Tier Alternatives:

Why is the No-Build Alternative Considered?

The No-Build Alternative 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.

- Alternative 1 No-Build - This is a requirement of the NEPA process
- Alternative 5 - Geometric Improvements
- Alternative 6 - Interchange Consolidations

Chapter 2 provides detailed information on the Second Tier Alternatives; the following paragraphs provide a summary of the alternatives.

No-Build

The No-Build Alternative originated from the I-70 First Tier EIS and includes maintenance activities as needed and projects already committed to in MoDOT's five-year construction program, the Statewide Transportation Improvement Program (STIP), and the Transportation Improvement Program (TIP). This alternative includes the following activities:

- Repaving I-70 through regular maintenance
- Upgrading the I-70 interchanges and bridges, including replacing the I-70 Bridge over Manchester Trafficway as identified in the STIP and TIP
- Transportation System Management (TSM) and Transportation Demand Management (TDM) activities
- Maintaining the existing bus service provided by the Kansas City Area Transportation Authority (KCATA)

What is Transportation System Management (TSM)?

TSM is a series of programs and efforts to improve the existing roadway operations without making substantial changes to the roadway itself. Some examples include Motorist Assist and Kansas City Scout Electronic Message Signs.

What is Transportation Demand Management (TDM)?

TDM is a series of programs and efforts to reduce the demand for using the roadway. Examples include carpooling, alternative work hours, and telecommuting.

Geometric Improvements

The Geometric Improvements Alternative incorporates the No-Build Alternative with improvements to the geometric features of I-70. **Figure 2-1** at the end of **Chapter 2 Alternatives Considered** displays the Geometric Improvements Alternative.

The Geometric Improvements Alternative could include rebuilding and/or rehabilitating I-70 pavement and bridges,

improving horizontal and vertical alignment, increased ramp lengths, extended weave areas, addition of auxiliary lanes, bus on shoulder, improved bicycle/pedestrian access across I-70, and consider aesthetic enhancements. Specific improvements could include:

- Rebuild and/or rehabilitate I-70 pavement and bridges over time
- Improve the Benton and Jackson Curves
- Remove the Benton Boulevard on-ramp
- Replace the low clearance bridge at 27th Street
- Extend merge and diverge ramp lengths at various locations
- Extend weave areas as appropriate
- Add auxiliary lanes between interchanges as appropriate
- Remove local road connections to on- and off- ramps
- Improve shoulder width to allow buses on shoulder
- Improve bicycle and pedestrian access across I-70
- Consider aesthetic enhancements

The estimated cost of the Geometric Improvements Alternative is \$216.7 million.

Interchange Consolidations

The Interchange Consolidations Alternative incorporates the geometric features improvements in the Geometric Improvements Alternative and consolidates some closely spaced interchanges. **Figure 2-2** at the end of **Chapter 2 Alternatives Considered** displays the Interchange Consolidations Alternative.

The Interchange Consolidations Alternative could include rebuilding and/or rehabilitating I-70 pavement and bridges, improving horizontal and vertical alignment, increased ramp lengths, extended weave areas, addition of auxiliary lanes, bus on shoulder, improved bicycle/pedestrian access across I-70, and consider aesthetic enhancements. Specific improvements could include:

What Does Geometrics Mean?

Geometrics are the design and the layout of the road as it relates to the number and width of lanes, shoulders, median width, curves, hills, and valleys of a road.

What is meant by Preferred Alternative?

The Preferred Alternative is the alternative 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. This does not mean the Preferred Alternative has been selected. The final Selected Alternative will be included in the Final EIS and Record of Decision. The Second Tier Draft EIS comments received from agencies, the public, the project website, and the public hearing will be considered prior to selecting a final Selected Alternative.

- Rebuild and/or rehabilitate I-70 pavement and bridges over time
- Consolidate Brooklyn Avenue and Prospect Avenue interchanges into one interchange
- Close the Truman Road westbound on-ramp and eastbound off-ramp
- Consolidate 18th Street and 23rd Street interchanges into one interchange
- Consolidate U.S. 40 and Manchester Trafficway into one interchange
- Consolidate 27th Street and Jackson Avenue interchanges into one interchange
- Close the eastbound ramp to Myrtle Avenue
- Improve the Benton and Jackson Curves
- Remove the Benton Boulevard on-ramp
- Replace the low clearance bridge at 27th Street
- Extend merge and diverge ramp lengths at various locations
- Extend weave areas as appropriate
- Add auxiliary lanes if needed between interchanges
- Remove local road connections to on- and off- ramps
- Eliminate the I-435 left lane exits and improve tight loop ramps
- Improve the low clearance bridge on Stadium Drive, improve the U.S. 40 and Manchester Trafficway interchange, and provide a new on-ramp from Stadium Drive to eastbound I-70 to mitigate the closure of the Manchester Trafficway interchange.
- Improve shoulder width to allow buses on shoulder
- Improve bicycle and pedestrian access across I-70
- Consider aesthetic enhancements

The estimated cost of the Interchange Consolidations Alternative is \$261.0 million.

What is the Preferred Alternative?

The Study Team has proposed a Preferred Alternative to move forward at this time. The I-70 Second Tier EIS Preferred Alternative is a combination of the Geometric Improvements and the Interchange Consolidations Alternatives. **Figure 2-3** at

the end of **Chapter 2 Alternatives Considered** displays the Preferred Alternative.

The Preferred Alternative combines improvements contained in the Geometric Improvements Alternative and Interchange Consolidations Alternative.

The Preferred Alternative could include rebuilding and/or rehabilitating I-70 pavement and bridges, improving horizontal and vertical alignment, increased ramp lengths, extended weave areas, addition of auxiliary lanes, improved bicycle/pedestrian access across I-70, and consider aesthetic enhancements. Some of the key improvements include:

- Rebuild and/or rehabilitate I-70 pavement and bridges over time
- Remove Brooklyn Avenue interchange ramps to and from I-70, access under I-70 will remain available
- Add an eastbound auxiliary lane between Prospect Avenue and the 18th Street off-ramp
- Improve the Benton and Jackson Curves
- Construct a connector road from Truman Road to Benton Boulevard to combine the two on-ramps into one on-ramp
- Add a westbound separated auxiliary lane between 18th and 23rd Streets
- Replace the low clearance bridge at 27th Street
- Remove local road connections to on- and off- ramps
- Add an eastbound connector road between 27th Street and Jackson Avenue to complete a split diamond interchange configuration
- Modify the southbound I-435 left lane exit ramp to a right lane exit ramp
- Extend weave areas as appropriate
- Extend merge and diverge ramp lengths at various locations
- Improve bicycle and pedestrian access across I-70
- Consider aesthetic enhancements

The estimated cost of the Preferred Alternative is \$227.3 million.



Proposed Connector Road between Truman Road and Benton Boulevard



Proposed I-435 Improvements

The Study Team chose the Preferred Alternative for the following reasons:

- It meets purpose and need for improving I-70 as identified in **Chapter 1**.
- It improves overall 2040 peak hour travel speed compared to the No-Build, Geometric Improvements, and Interchange Consolidation Alternatives.
- It considers public comments and concerns.
- It has the fewest number of relocations of homes and businesses in the environmental justice population areas compared to the Geometric Improvements and Interchange Consolidation Alternatives.
- It has comparable human and natural environmental impacts as the Geometric Improvements and Interchange Consolidation Alternatives.
- It has a comparable estimated cost to the Geometric Improvements Alternative and costs less than the Interchange Consolidations Alternative.
- It improves access across the freeway.
- It rebuilds and/or rehabilitates the existing infrastructure.

The planned construction phasing will begin with improvements at the I-435/I-70 interchange. The STIP for 2014 to 2018 includes the project scoping, but not construction for the improvements at the I-435/I-70 interchange. The construction, timing, and phasing beyond this is contingent on available funding.

What is meant by public/semi-public land uses?

A public space is open and available to all the citizens. Semi-public space has some stricter rules attached such as dress codes, advertising limits, entrance fee, or skateboards limitations to name a few.

How Will the Alternatives Affect the Human Environment?

The following is a brief summary of some of the key environmental effects of the alternatives. **Chapter 3** discusses the effects of the alternatives in detail.

Land Use

Land uses within the Study Area include single-family residential, multi-family residential, commercial, industrial, office, mixed use, parks and open space, public/semi-public, and government.

The No-Build Alternative would be consistent with local planning in the cities of Kansas City and Independence, Missouri. This alternative would have no affect on the existing land use and zoning.

The Geometric Improvements Alternative will have a minimal affect on the existing land use and zoning. It acquires property at several points along the corridor.

The Interchange Consolidations Alternative will potentially affect commercial, residential, and other facilities near an interchange proposed to be consolidated. The Interchange Consolidations Alternative is not consistent with current and planned zoning and land uses at several points due to the planned interaction between development and access to I-70 at interchanges proposed for consolidation.

The Preferred Alternative proposes to acquire property at several points along the corridor, close access points at Brooklyn Avenue and Myrtle Avenue, consolidate interchange ramps between Benton Boulevard and Truman Road, and complete a split diamond interchange at 27th Street and Jackson Avenue. It is generally consistent with planning and zoning.

Section 3.1 Land Use and Zoning provides more details on land use affects.

Communities and Neighborhoods

Transportation projects can impact neighborhoods by relocating residents, dividing the neighborhood, removing local businesses, and creating an atmosphere that discourages neighbors from interacting with each other. MoDOT and FHWA will work with local communities and neighborhoods to reduce and minimize neighborhood impacts as much as possible.

The No-Build Alternative will affect the neighborhoods surrounding the existing corridor as increased congestion will make it less desirable to live near I-70. Without improvements, local residents can expect increased congestion



Houses in the Study Area



Fire Station 18

What is Section 4(f)?

Section 4(f) of the Department of Transportation Act of 1966 states that no transportation project should be approved which requires the use of land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless there is no feasible or prudent alternative to the use of such land.

What is Section 6(f)?

Section 6(f) of the Land and Water Conservation Act prohibits the conversion of any property acquired or developed with the assistance of the land and water conservation funds to anything other than public outdoor recreation use without the approval of the Secretary of the Department of Interior.



**Median at Van Brunt
Boulevard**

leading to increased noise and air quality issues. In addition, increased congestion will lead to the use of alternate routes which are often arterial roads through neighborhoods which will likely make travel more difficult for local residents.

The Geometric Improvements and Interchange Consolidations Alternatives will affect all neighborhoods surrounding the existing corridor to varying degrees. These effects include acquisition of homes, businesses, and community properties; increased noise and air quality issues; and visual effects on residents. When businesses are displaced, residents may have to travel farther for routine services. Both alternatives also are expected to close or consolidate some access to I-70 and add cul-de-sacs at various locations as needed. This would require a slight change to some existing travel routes, although the impact is anticipated to be minimal and not impact any transit routes.

The Preferred Alternative, like the Geometric Improvements and Interchange Consolidations Alternatives, will not impact any schools, colleges and universities, libraries, hospitals, park facilities, or recreational areas. It has fewer effects on homes and businesses than the other two Build Alternatives. The Preferred Alternative is expected to close or consolidate some access to I-70 and add some cul-de-sacs at various locations as needed. This would require a slight change to some existing travel routes, although the impact is anticipated to be minimal. In addition, residents who ride transit that use I-70 in the Study Area would experience the benefits of the overall improved travel time.

Section 3.2 Community and Neighborhood Effects provides more details.

Effects on Public Lands

Public lands and facilities include parks and community centers. Many public lands and facilities are protected by Section 4(f) of the Department of Transportation Act or Section 6(f) of the Land and Water Conservation Act.

The No-Build Alternative will have no effect on any of the public lands or facilities protected under Section 4(f) or Section 6(f).

The Geometric Improvements Alternative, Interchange Consolidations Alternative, and the Preferred Alternative will impact The Paseo, Benton Boulevard, and Van Brunt Boulevard median as the on-ramps and off-ramps and bridge structures are improved. These are a part of the Kansas City Parks and Boulevard System protected under Section 4(f). The majority of the affects will be temporary during construction. There are no anticipated affects to protected lands under Section 6(f).

Section 3.3 Public Lands and Facilities provides more information.

Relocations of Homes and Businesses

The No-Build Alternative will not require any relocation of residences, businesses, or community facilities.

The other alternatives would require the potential relocation of homes, businesses, and community facilities within the Study Area. The Geometric Improvements Alternative would require residential, commercial, and community facility relocations. In total, the Geometric Improvements Alternative would require the potential relocation of 42 residences, five businesses, and one community facility. The residential relocations may include not only single-family residences, but eight duplexes which totals 16 residences. The community facility that would be potentially relocated is the New Testament Pentecostal Church.

The Interchange Consolidations Alternative would require the potential relocation of 62 residences, eight businesses, and one community facility. The residential relocations may include not only single-family residences, but eight duplexes (a total of 16 residences), and eight manufactured homes. The community facility that would be potentially relocated is the Bales Temple Church of God in Christ.



Galilee Baptist Church



Manchester Village Mobile Home Park

Environmental Justice Populations Defined:

Environmental Justice Populations are cluster(s) of minority and/or low-income populations.

The Preferred Alternative would require the potential relocation of 31 residences and six businesses. The residential relocations may include both single-family and multi-family residences. The Preferred Alternative would require the potential relocation of five duplexes, a total of 10 residences.

Section 3.4 Relocations provides more information.

Environmental Justice

The Environmental Justice requirements were established by Executive Order 12898 in 1994 entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”. This mandates that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of proposed projects on minority and low-income populations. Environmental Justice builds on Title VI of the Civil Rights Act of 1964.

The Study Team conducted an analysis to identify Environmental Justice populations using U.S. Census data. The analysis of population characteristics indicates that there are Environmental Justice populations living within the Study Area, both minority and/or low-income populations. The data indicated that all of the Study Area is an Environmental Justice area whether because of minority populations, low-income populations, or both combined.

The No-Build Alternative would have minimal adverse effects on minority and low-income populations. The primary effects would likely be on-going congestion throughout the corridor along with associated noise and air quality impacts.

The Geometric Improvements Alternative, Interchange Consolidations Alternative, and the Preferred Alternative would have adverse, but not disproportionately high effects on minority and low-income populations living along the I-70 corridor. The Geometric Improvements Alternative, Interchange Consolidations Alternative, and the Preferred Alternative require additional right of way and relocations at locations along the corridor that have concentrated populations of minority and/or low-income persons. The

Geometric Improvements Alternative and the Preferred Alternative will each require approximately 37 acres of additional right of way, while the Interchange Consolidations Alternative would require 55 acres.

The alternatives also are expected to close or consolidate I-70 access and add cul-de-sacs on various local roads as needed. This would require a slight change to some existing travel routes, although the impact is anticipated to be minimal.

Over 80 percent of the amount of right of way required for each alternative is located within Environmental Justice areas. This is because many of the people living in the Study Area are minority persons and/or low-income. All of the residential relocations required by each of the alternatives are within Environmental Justice areas. The adverse impacts are unavoidable because of the nature of the Study Area, which is almost entirely an Environmental Justice area. These impacts will be mitigated through input gathered during public and stakeholder involvement process, specifically through upcoming public involvement efforts (i.e. Public Hearing) and after the EIS is complete during the design phase.

The Study Team held three rounds of public outreach prior to the publication of this Draft EIS described in **Chapter 4**.

More detail on this analysis is contained in **Section 3.5 Environmental Justice**.

Economic Effects on Businesses, Jobs, and Taxes

Under the No-Build Alternative, the congestion, bottlenecks, safety, and goods movement issues discussed in **Chapter 1** would not be addressed. The thousands of residents that use I-70 on a daily basis to commute to work would continue to experience worsening congestion on their daily commute. This would result in reduced or delayed access to jobs in the central parts of the Kansas City Area and a potential reduction in the attractiveness of downtown as a location for employment.

The No-Build Alternative may negatively affect jobs related to the trucking industry and businesses that rely on I-70 for

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 access points where traffic is entering or exiting the road. A bottleneck is the most vulnerable point for congestion in a road network and is also referred to as a chokepoint.

product delivery. Congestion causes travel time delays for the transportation and delivery of goods. This costs businesses in the form of increased fuel usage, wages for drivers stuck in traffic, lost productivity of trucks, and a reduction in the number of daily trips that truck drivers can make.

The Geometric Improvements Alternative, the Interchange Consolidations Alternative, and the Preferred Alternative would affect businesses and jobs in three key ways:

- By requiring businesses to relocate as part of the acquisition of new right of way
- By changing access near the location of specific businesses that could make it easier or more difficult for customers/workers to reach the business
- By improving travel times and goods movement for businesses and workers through reduced congestion

What is meant by Hazardous Waste Sites?

Hazardous waste sites are properties that produce or store waste with properties that make it dangerous or potentially harmful to human health or the environment.

What is Resource Conservation and Recovery Act (RCRA)?

RCRA's primary goals are to protect human health and the environment from the potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner.

Section 3.6 Economics provides more information.

Hazardous Waste

The No-Build Alternative would not impact any of the identified hazardous waste sites in the Study Area. The potential for hazardous waste contamination from the 56 identified hazardous waste sites in or adjacent to the Study Area is low.

Each of the other alternatives could potentially affect 16 identified hazardous waste sites. The hazardous waste sites within the Study Area for the Preferred Alternative include drycleaner sites, Resource Conservation and Recovery Act (RCRA) facilities, and storage tank sites that would not normally be expected to impact the construction activities unless an unreported release has occurred. No other environmental contamination concerns were identified during the site visits.

Section 3.8 Hazardous Waste provides more information.

Cultural Resources

The Section 106 Review for historical and architectural resources concluded that no additional resources in the APE other than The Paseo, Benton Boulevard, and Van Brunt Boulevard are eligible to the NRHP as part of a proposed historic district. They, and numerous associated resources outside the APE, comprise the Kansas City Parks and Boulevard System, for which a National Register nomination is presently being prepared. Only a small portion of these three boulevards lie within the APE and each has been altered, thus affecting the historic integrity of these sections and the project effects determination. The "Cultural Resource Archival and Architectural Review" report details these findings and was submitted to the SHPO for review. Further consultation among the SHPO, the KC Parks and Boulevard NRHP nomination preparer, MoDOT historic preservation staff, and the consultant Study Team has resulted in the identification of only minor impacts to these boulevards which will have no adverse effect to the historic parks and boulevard system.

The First Tier archival study identified 18 archaeological sites previously recorded within the I-70 First Tier EIS Study Area. None of these sites are within the I-70 Second Tier EIS APE. The First Tier archival study revealed nine areas of moderate to high potential for archaeological sites all within the eastern portion of the I-70 First Tier EIS Study Area. Three of the areas, one designated high potential and two of moderate potential, fall within the eastern extent of the I-70 Second Tier EIS APE in the I-435 interchange area. After final determination of the Recommended Alternative, a Phase I archaeological survey will be completed for the APE. The potential locations of unknown archaeological sites could be impacted by the Geometric Improvements Alternative, the Interchange Consolidations Alternative, or the Preferred Alternative.

More information is contained in **Section 3.9 Cultural Resources**.

What is the Area of Potential Effects (APE)?

The geographic area or areas within which a project may directly or indirectly cause modification in the character or use of cultural resources, if any exist. The area of potential effect is influenced by the size and nature of the project.

What are Noise Abatement Criteria?

Noise abatement criteria are the FHWA standards for highway noise levels affecting specific nearby noise sensitive land uses.

Noise

The I-70 Study Area contains many noise-sensitive land uses, most of which are homes. The No-Build Alternative noise levels are expected to increase for existing residences and businesses along I-70 as traffic and congestion continues to grow over time. The No-Build Alternative is anticipated to affect 889 sensitive noise locations with noise levels approaching or exceeding FHWA's noise abatement criteria.

The Geometric Improvements Alternative, the Interchange Consolidations Alternative, and the Preferred Alternative are expected to increase noise levels. The areas likely to be impacted the most are locations along I-70 that have a high concentration of both single-family and multi-family residences. These alternatives will impact between 911 and 917 sensitive noise locations.

Section 3.10 Noise provides additional detail on the areas affected by noise for each alternative.

What are Other Effects on the Human Environment?

There are several human environmental resources with minimal impacts from each of the alternatives. These resources are discussed in the following sections – **Section 3.7 Visual Impact Assessment, Section 3.17 Energy, Section 3.18 Utilities, Section 3.19 Indirect and Cumulative Impacts, Section 3.20 Joint Development, Section 3.21 Relationships, Section 3.22 Irreversible and Irretrievable Commitment of Resources, Section 3.23 Construction Impacts.**

How will the Alternatives Affect the Natural Environment?

Air Quality

The No-Build Alternative will have greater air quality impacts compared to the any of the Build Alternatives. This is due to an increase in traffic, congestion, and travel delays associated with the No-Build Alternative. Some of the air quality impacts

may be offset with anticipated vehicle fuel mileage efficiency increases and emission reductions over time.

The Geometric Improvements Alternative, the Interchange Consolidations Alternative, and the Preferred Alternative are expected to improve air quality by reducing congestion and stop and go traffic. The improved traffic flow will allow vehicles to move more efficiently. In addition, anticipated vehicle fuel mileage efficiency increases and emission reductions will also improve air quality over time. However, these alternatives are also projected to increase the number of vehicles on I-70. Increased vehicle use along I-70 may negate some of the air quality benefits.

Section 3.11 Air Quality has more information.

Groundwater, Drainage, and Surface Water Quality

The No-Build Alternative likely will not affect the water quality in the Study Area. The proposed route for I-70 improvements are on the same general alignment as the existing route.

The Geometric Improvements Alternative, the Interchange Consolidations Alternative, and the Preferred Alternative are expected to increase the impervious surface and increase rainwater runoff.

MoDOT will implement its Pollution Prevention Plans to mitigate stormwater and construction impacts to streams, water courses, lakes, ponds, or other water impoundments within and adjacent to the project area.

Section 3.12 Groundwater, Drainage, and Surface Water Quality provides more details.

Floodplains, Stream, and River Crossings

The No-Build Alternative would have no impacts on floodplains and floodways, with the exception of minimal impacts that would occur in conjunction with the replacement

What is an impervious surface?

Impervious surfaces are hard surface that prevents water from entering the soil.

What is a floodplain?

A floodplain is the relatively flat land adjacent to a stream or river that experiences occasional or periodic flooding.

of the Manchester Bridge over the Blue River as part of a separate project.

The Geometric Improvements Alternative, the Interchange Consolidations Alternative, and the Preferred Alternative will affect approximately 1.65 acres of floodplain in the vicinity of the U.S. 40 interchange and between the west end of the Manchester Bridge and the U.S. 40 interchange.

Section 3.13 Floodplains, Streams, and River Crossings provides more details.

What are Other Effects on the Natural Environment?

There are several environmental resources with minimal impacts from each of the alternatives. These resources are discussed in the following sections – **Section 3.14 Wetlands, Section 3.15 Wildlife, Plants, and Threatened and Endangered Species, and Section 3.16 Farmland and Soils.**

Commitments

The commitments are discussed in **Section 3.24 Proposed Project Commitments.** MoDOT will implement all project and regulatory commitments whether or not specifically delineated herein. These actions will be scheduled after construction limits are determined through detailed design and before the contractor is given notice to proceed with construction. Federal authorization for construction will not be granted until the necessary regulatory obligations have been satisfactorily completed.



Mobile Meeting Event at the Museums at 18th and Vine

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

MoDOT developed a detailed Public Involvement and Agency Coordination Plan specifically for the I-70 Second Tier EIS. The plan was circulated to participating agencies and local study management agencies for review and comment. The plan was also posted on the project website for public review

and comment. Detailed discussion of how MoDOT involved the Public and Stakeholders is contained in **Chapter 4**.

Community Advisory Group

The I-70 Second Tier EIS Community Advisory Group (CAG) focused on providing meaningful input to MoDOT as it plans for the improvement of I-70. The CAG was one of several tools MoDOT used to gather public feedback. The CAG consisted of appointed members of the public from several interested agencies and organizations.

Each CAG member was responsible for providing I-70 study updates back to these agencies and organizations. MoDOT has held seven CAG meetings to date.

Public Information

MoDOT developed several ways to educate the public about the project. These included a project web site, a project phone number, project newsletters, a Community Connections Team, public meetings and listening posts, MindMixer, Twitter, local media, and other project interactive activities.

Listening Posts

MoDOT held two listening posts for the public to attend prior to the publication of this Second Tier Draft EIS. Both listening posts were held in an open house format for two to three hours and members of the public could stop by at any time. The first listening post was held April 2012 to gather input on the Purpose and Need and help define the 12 Initial Alternatives. The second listening post was held in July 2012 for the public to comment on the 12 Initial Alternatives and assist in the development of the Second Tier Alternatives that were carried forward.



Mobile Meeting

Mobile Meetings

In addition, MoDOT vinyl wrapped an existing 12-passenger van, provided a display tent, and backdrop to share information about the Second Tier EIS with the community.

The mobile meetings were held at eight different events throughout the study.

Online Town Hall Meetings

The online town hall meetings used MindMixer as the host of a variety of online tools that help engage the public in the decision making process through surveys, thought provoking questions, blogs, and other online interactive methods to get public feedback. The online town hall meeting is located at www.metroI70.com.

Community Connections Team

MoDOT also established a Community Connections Team for the study. Study Team members are available to attend neighborhood, business, and community organization meetings by request. The Study Team sent an invitation letter to more than 45 organizations along the corridor inviting them to request a speaker. The Study Team also posted a Community Connections Team request form on the project website. As of June 2013, Study Team members have presented at 19 community group meetings.

How Do I Comment on This Document and the Alternatives?

A public comment period of no less than 45 days will follow the publication of this Second Tier Draft EIS document. During the comment period, MoDOT will hold a formal Public Hearing. MoDOT will also hold a series of mobile meetings, host an online town hall meeting, and attend further speaking engagements. The public and stakeholders can participate through any one of these events or send comments on this Second Tier Draft EIS and the alternatives to the addresses listed on the first page of the document.

What are the Next Steps for Improving I-70?

Following the Public Hearing and comment period, the Study Team will use the input provided by the public, stakeholders, and agencies to help refine the Preferred Alternative. The

Study Team will produce a Second Tier Final EIS document and Record of Decision that updates the Preferred Alternative and addresses the comments received.