

CHAPTER 3

Affected Environment and Environmental Consequences

This chapter discusses the effects of the Strategy Packages on the human and natural environment. Effects are discussed for the No-Build Strategy, Improve Key Bottlenecks Strategy, Add General Lanes Strategy, Transportation Improvement Corridor Strategy, and Identified Preferred Strategy. Figures of these alternatives are located at the end of **Chapter 2**.

The chapter includes a discussion of effects under 23 categories in subsections. For each category, background information is provided on the affected environment, describing existing conditions in the Study Area. For categories where the strategies have a negligible impact, the discussion of resources and affects are brief. For more substantial impacts, the subsections contain a more detailed impacts analysis. Where the potential effects of the strategies vary substantially by location within the Study Area, they are discussed in five study area Sub-Areas.

- Downtown Sub-Area: The FTEIS Study Area west of Tracy Avenue
- Suburban Sub-Area: Tracy Avenue to Topping Avenue
- I-435 Sub-Area: Topping Avenue to east of Blue Ridge Cutoff
- Suburban Sub-Area: East of Blue Ridge Cutoff to east of Lee's Summit Road
- I-470 Sub-Area: East of Lee's Summit Road to the eastern limits of the Study Area

Figure 3.0 at the end of this chapter shows the Sub-Areas used for the impact analysis.

The potential for indirect and cumulative impacts to resources is discussed in **Section 3.19**.

When applicable, mitigation measures to avoid, minimize, or mitigate harm to environmental resources are also discussed

What does Mitigation mean?

Mitigation is defined as the elimination, reduction, or control of the negative environmental effects of a project, and includes measures to address any damage to the environment caused by such effects through replacement, restoration, compensation, or any other means.

What are Second Tier studies?

Tiering allows projects to conduct the planning and NEPA activities for large transportation projects in two phases: a first tier study addresses broad, overall corridor issues, and a second tier focuses on site-specific impacts, costs, and mitigation measures. Second Tier studies result in traditional project level environmental documents.

by Sub-Area. Most of the detailed discussion of mitigation measures will occur as part of the Second Tier studies, when further engineering design detail is developed for the selected strategy. For each category of impact, a brief discussion of how the analysis will proceed as the study moves to Second Tier studies is included.

3.1 Land Use and Zoning

This section discusses the effect the proposed strategies will have on land use and zoning in the Study Area.

Where is the I-70 FTEIS Study Area?

The I-70 FTEIS Study Area extends from the Missouri-Kansas state line to east of I-470, a distance of approximately 18 miles including the entire downtown loop. The Study Area follows I-70 through the City of Independence, Missouri and several Kansas City, Missouri designated neighborhood areas including the Central Industrial District, River Market, Columbus Park, Downtown, Westside, Crossroads District, Garfield-Independence Plaza, Downtown East, Santa Fe, Budd Park, East 23rd Street, Blue Valley Industrial, and Sports Complex Area. The land use Study Area includes all land uses within approximately 1,000 feet of the I-70 highway centerline.

What is the Existing Land Use and Zoning in the Study Area?

The following section is a summary of the existing land uses and zoning within the I-70 FTEIS Study Area by neighborhood area. All of the neighborhood and community areas and the respective land uses are shown in **Figure 3.1.1** at the end of this chapter.

Central Industrial District

The Central Industrial District, commonly known as the west bottoms, is located west of Downtown Kansas City. It is bound by the Missouri River on the north, the Missouri-Kansas state line on the west, 27th Street on the south, and the bluffs on the east. The area is primarily industrial with some commercial. Both light and heavy industrial land use exist within the Central Industrial District portion of the I-70 Study Area.



Central Industrial District

What is Light Industrial?

Light industrial is the production of goods that are consumer oriented and produced for the end user.

What are commercial land uses?

Commercial land uses allow the sale of goods and/or services. Stores and restaurants are examples.



Historic City Market

What are multi-family residential land uses?

Multi-family land uses allow for buildings that house two or more separate living quarters. Apartment buildings, townhomes, and duplexes are examples of multi-family residential uses.

What is meant by mixed use?

Mixed Use is the combination of residential, commercial, industrial, office, institutional, or other land uses in a single building or set of buildings.

River Market

The River Market is located just north of downtown Kansas City. It is bound by the Missouri River on the north, Bluff Drive on the west, I-70/I-35 on the south, and the Heart of America Bridge on the east. The area is primarily commercial and multi-family residential. The River Market portion of the I-70 Study Area contains the following existing land use categories:

- Commercial
- Multi-family residential
- Mixed use (typically zoned commercial)
- Parks and open space
- Public/semi-public

Within the Study Area, the most prevalent land use is commercial and multi-family residential or apartments and condominiums. The commercial uses include restaurants, bars, taverns, retail shops, and legal offices. Also located within the River Market is the historic City Market. The City Market includes retail shops, restaurants, a grocery store, the Arabia Steamboat Museum, and on Saturdays a farmers market.

The mixed use land use is represented by numerous structures with retail and/or office on the ground level and apartments or condominiums on the upper levels. A fire station is also located in this part of the Study Area.

Columbus Park

Columbus Park is bound by the Missouri River on the north, the Heart of America Bridge on the west, I-70/I-35 on the south, and I-29/I-35 on the east. This area is primarily residential. The Columbus Park portion of the I-70 Study Area contains the following existing land use categories:

- Single-family residential
- Multi-family residential
- Commercial
- Parks and open space
- Public/semi-public

Within the Study Area, the most prevalent land use is multi-family and single-family residences. There are some commercial uses located on Charlotte Street and 5th Street. Columbus Square Park is located in this area. The Study Area also contains numerous public/semi-public uses which include the Don Bosco Senior Center, Full Faith City Church, and Holy Rosary Church.

Downtown

Downtown Kansas City, MO is the central business district for the city. It is bound by I-70/I-35 on the north, I-35 on the west, I-670 on the south, and I-70 on the east. All of the Downtown is within the I-70 Study Area. The Downtown contains the following existing land use categories:

- Commercial
- Multi-family residential
- Industrial
- Government
- Public/semi-public
- Parks and open space

This area is primarily high rise, high-density commercial buildings with an increasing number of multi-family residential units, consisting of high rise apartments and condominiums. The dominant commercial land uses are retail, office, wholesale, restaurants, and other commercial activities catering to the working downtown population. Several companies' headquarters are in Downtown including law firms, insurance companies, and business and office suppliers. In recent years several office buildings and older industrial buildings have been converted to high rise multi-family residential units.

Some industrial uses remain in the southern portion of the Downtown. The government buildings in downtown include the City of Kansas City, MO City Hall, Federal Courthouse, and Jackson County Courthouse. Also in the Downtown are the Kansas City, MO Police Department and several other public/semi-public uses including several churches and community facilities like the Bartle Hall Convention Center.



New Multi-family Residential in Columbus Park



Quality Hill Condominiums located at 10th Street and Pennsylvania Avenue

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

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

There are also six parks in the downtown area: River Bluff Park, Ermine Case Jr. Park, Barney Allis Plaza, Oppenstein Brothers Memorial Park, Ilus W. Davis Park, and Admiral Park.

A development project that includes the headquarters of J. E. Dunn Construction Company, a major federal government office complex, and multi-family residential units is planned for the northeastern portion of the Downtown. The historical Garment District is located in the western portion of the Downtown.

Westside

The Westside is bound by I-35 and I-670 on the north, the bluffs and railroad tracks on the west, 31st Street on the south, and Broadway Boulevard and Southwest Trafficway on the east. This area is primarily residential. The Westside portion of the I-70 Study Area contains the following existing land use categories:



Multi-family Residential in the Westside

- Single-family residential
- Multi-family residential
- Industrial
- Public/semi-public
- Parks and open space

The Westside portion of the Study Area is comprised of major strips of commercial activity on Broadway Boulevard and pockets of industrial uses. In addition, there is some multi-family and single-family residential on the west side of Broadway Boulevard. The public/semi-public uses include the Mattie Rhodes Center and the New Life on the Westside Non-Profit Youth Center. The parks include Mulkey Square, Jarboe Park, and Andrew Drips Park.

Crossroads District

The Crossroads District is bound by I-670 on the north, Broadway Boulevard and Southwest Trafficway on the west, Pershing Road on the south, and U.S. 71 on the east. The Crossroads District is characterized as an area attractive to upscale restaurants and shops, and artists. The Crossroads

District portion of the I-70 Study Area contains the following existing land use categories:

- Commercial
- Multi-family residential
- Public/semi-public
- Government

Within the Study Area, the most prevalent land use is commercial which includes retail stores, restaurants, bars, and car dealerships. Recent developments in the area include multi-family residential consisting of condominiums and apartments. The public/semi-public uses include a police station, fire station, Hope Faith Ministries, Jewish Vocational Service, and Plaza de Niños Preschool. A government use is the Kansas City Correctional Center.

Garfield-Independence Plaza

The Garfield-Independence Plaza area is east of downtown and is bound by Cliff Drive on the north, I-29/I-35 on the west, I-70 on the south, and Prospect Avenue and Chestnut Avenue on the east. This area is characterized by several different land uses including multi-family residential, industrial, single-family residential and commercial. The Garfield-Independence Plaza area was once the location of an urban renewal district consisting of several high rise public housing units. These units were demolished in favor of the more-pleasant lower density residential units that are found interspersed throughout this area currently. The Garfield-Independence Plaza Area of the I-70 Study Area contains the following existing land use categories:

- Commercial
- Industrial
- Single-family residential
- Multi-family residential
- Mixed use (typically zoned commercial)
- Public/semi-public
- Parks and open space
- Government



Leedy-Voulkos Art Center
in the Crossroads District



Margaret Kemp Park

There are newer multi-family units just north of I-70 and Prospect Plaza Park, beginning at 11th Street and basically covering the entire Prospect Avenue to Paseo Boulevard corridor. There is industrial, multi-family and single-family residential from Prospect Avenue and 13th Street to Prospect Plaza Park and 12th Street; then again those same uses are interspersed from 11th Street and Prospect Avenue to 9th Street and in other areas north of 11th Street. There are mixed uses of multi-family residential and commercial along Independence Avenue between Paseo Boulevard and Chestnut Avenue. Between Paseo Boulevard and Troost Avenue there are several multi-family units.

On the west side of the area beginning at Troost Avenue at I-70 there are industrial uses. The Greyhound Bus Terminal is located at 12th Street and Troost Avenue. The City Union Mission is located at the intersection of 10th Street and Troost Avenue.

There are two parks located in the Study Area; Margaret Kemp Park and Prospect Plaza Park. A government use in this area is a post office.



18th and Vine Streets Historic District

Downtown East

The Downtown East area is bound by I-70 on the north, Troost Avenue on the west, 23rd Street on the south, and I-70 on the east. Within the area are generally mixed land uses including residential and the 18th and Vine Streets Historic District. The Downtown East area portion of the I-70 Study Area contains the following existing land use categories:

- Multi-family residential
- Single-family residential
- Industrial
- Commercial
- Parks and open space
- Public/semi-public

Within the Study Area, there is multi-family residential consisting of high rise apartments and public housing units mostly centered in and around Paseo Boulevard and a few blocks to the east to Brooklyn Avenue. There are industrial

and commercial uses in the western portion of the area. Several parks are also found in this area including Parade Park, The Grove, and Montgall Park. There are several churches in the area particularly on Paseo Boulevard, including St. Stephens Baptist Church and St. Monica's Catholic Church.

There are commercial and industrial uses centered near the intersection of Prospect Avenue and Truman Road. Additional industrial along with single and multi-family residential is located from 23rd Street to 19th Street near Montgall Park.

Santa Fe

The Santa Fe area is located southeast of downtown Kansas City, MO. It is bound by 23rd Street on the north, Troost Avenue on the west, 31st Street on the south, and I-70 on the east. This area is primarily residential although a variety of land use categories exist within the Santa Fe portion of the I-70 Study Area. They include:

- Single-family residential
- Multi-family residential
- Commercial
- Industrial
- Public/semi-public
- Parks and open space
- Vacant land

Within the Study Area, the most prevalent land use is single family residential. A mobile home park located near the 31st Street/I-70 interchange represents a multi-family land use. Commercial land use is represented by many retail stores, businesses, restaurants, and auto dealerships and is found mainly along arterial roads and near highway interchanges.

The Study Area also contains many public/semi-public structures which include churches, the Faith Worship Family Center, and the Meyer Nursing & Convalescence Center. Two private corporations make up the industrial land use; Brown Industries and Super Metal Treating & Equipment. There are two parks; Cypress Park and Indiana Park within the Study Area. The area does contain a few vacant properties near I-70.



Make shift store at abandoned gas station near I-70 and Van Brunt Boulevard.

Budd Park

The Budd Park area is located east of downtown Kansas City, MO. It is bound by the Missouri Pacific Railroad on the north, Prospect Avenue south of Independence Avenue and Chestnut Avenue north of Independence Avenue on the west, Kansas City Terminal Railroad on the south, and Belmont Boulevard on the east. This area serves as both a residential and industrial area. A small portion of the I-70 Study Area is found only in the extreme southwest corner of the Budd Park area. The Budd Park portion of the I-70 Study Area contains the following existing land use categories:



Single-family Residential in the Budd Park Area

- Single-family residential
- Multi-family residential
- Commercial
- Industrial
- Public/semi-public
- Vacant land

Within the Study Area, the most prevalent land use is single-family residential. Multi-family residential land use is represented by several apartment buildings located along 12th Street. Commercial land use is comprised of retail stores, businesses, bars, and an auto dealership spread throughout the area as well as several public/semi-public structures (churches). In addition, the area contains industrial land uses and several vacant properties, mainly along 12th Street.

East 23rd Street

The East 23rd Street area is located southeast of downtown Kansas City, MO. This area is bound by the Kansas City Terminal Railroad on the north, I-70 on the west and south, and Topping Avenue on the east. The East 23rd Street portion of the I-70 Study area contains the following existing land use categories:



Sign designating the East 23rd Street Neighborhood

- Single-family residential
- Commercial
- Industrial
- Public/semi-public

- Government
- Vacant land

Within the Study Area, the 23rd Street area contains mostly single-family residential, including several Habitat for Humanity homes near the Jackson Avenue/I-70 interchange. Commercial uses include retail stores, businesses, and day cares and there are a few private industrial corporations throughout the area. There are also several public/semi-public structures including many churches and the Mt. St. Mary Catholic Cemetery. A United States Postal Service complex represents the only government use. There are small amounts of vacant parcels near I-70.



**U.S. Postal Service Complex
at 18th Street and Indiana
Avenue**

Blue Valley Industrial

The Blue Valley Industrial area is located north of I-70 and adjacent to (west of) I-435 in Kansas City, MO. It is bound by the Kansas City Terminal Railroad on the north, Topping Avenue on the west, I-70 on the south, and I-435 on the east. This area is primarily residential as well as heavy industrial. The Blue Valley Industrial area portion of the I-70 Study Area contains the following existing land use categories:

- Single-family residential
- Commercial
- Industrial
- Heavy industrial
- Public/semi-public
- Park
- Government
- Vacant land

Within the Study Area, the most prevalent land uses are light and heavy industrial, mainly near the U.S. 40/I-70 interchange. There is a single-family residential area near Topping Avenue and 29th Street, and two mobile home parks along U.S. 40. Additionally, there are several commercial uses represented by hotels/motels, an auto dealership, and private businesses located throughout the Study Area and a single public/semi-public use, the Glendale Baptist Church. The Kansas City Police Department K-9 training facility is located off of U.S. 40 and a portion of Blue Valley Park crosses into the

Study Area near Topping Avenue. There is also a moderate amount of vacant land that borders I-70.

Sports Complex



Arrowhead Stadium

The Sports Complex area is bound by 23rd Street on the north, I-435 on the west, 67th Street on the south, U.S. 40 and the City of Independence, MO on the east. It is home to the Truman Sports Complex which houses Kauffman Stadium and Arrowhead Stadium. The Sports Complex area portion of the I-70 Study Area contains a mix of existing land uses including:

- Single-family residential
- Multi-family residential
- Commercial
- Industrial
- Public/semi-public
- Utilities

Within the Study Area, the most prevalent land use is single-family residential. The next most prevalent land use is commercial represented by numerous retail stores, businesses, gas stations, banks, auto dealerships, a drive-in movie theater, cafes and restaurants, and several motels/hotels, most of which are located near the sporting venues and the U.S. 40/I-70 interchange. Also near the U.S. 40/I-70 interchange are apartment complexes.

This part of the Study Area also contains public/semi-public uses including churches, the sports stadiums, and a Missouri Welcome Center. Also in the Study Area are several public/semi-public uses including grade schools, Vatterott College, and the Berean Christian Academy. The area also contains a utility power station and a cellular phone tower.

City of Independence

The City of Independence, MO is located just east of Kansas City, MO. It includes a portion of the I-70 Study Area from roughly U.S. 40/Chrysler Avenue east to the Little Blue Parkway/I-70 interchange.

A majority of the Independence's existing land use in the Study Area is single-family residential. But it also contains many other land uses including, but not limited to, multi-family residential, commercial, parks and open space, and agricultural. Independence's portion of the I-70 Study Area contains a smaller mix of existing land use categories including:

- Single-family residential
- Multi-family residential
- Commercial
- Public/semi-public
- Government
- Parks and open space

Several apartment complexes represent the multi-family residential land use and are found near the I-470/I-70 and U.S. 40/I-70 interchanges. Commercial uses include numerous retail stores and businesses, shopping centers, gas stations, cafes and restaurants, auto dealerships, motels/hotels, and banks. Larger and more common commercial uses include Costco, Wal-Mart, Sam's Club, The Home Depot, K-Mart, and the Independence Center Shopping Mall.

Additionally, this portion of the Study Area also contains a large assortment of office buildings, especially near the Noland Road/I-70 interchange. There are a few public/semi-public uses; churches, and William Southern Elementary School. A government use is the Social Security Administration building. This part of the Study Area contains three parks; Joseph Adair Park, Waterfall Park, and Carriage Hills Park.

How Will MARC's Transportation Outlook 2040 Plan Affect Land Use and Zoning in the Study Area?

MARC's Long Range Transportation Plan (LRTP) is being updated and scheduled to be adopted in the Summer of 2010. The LRTP update is presenting two land use scenarios – a Baseline Scenario and an Adaptive Scenario.

The Baseline Scenario is the continuation of the existing land use trends throughout the region. This scenario shows a



Costco near the I-70/I-470 Interchange

decline in the urban core, surrounded by limited redevelopment, and widespread, scattered new development. Redevelopment occurs, but consists of replacing old structures with the same land use.

What is Infill Development?

Infill development is the process of the developing vacant or under used land within the existing urban area.

The Adaptive Scenario is based on dense infill development closer to the downtown area while adapting to climate change issues, higher gasoline and electricity prices, less consumption, demographic shifts, and changing technology. This could be similar to the outcome of implementing policy goals in Transportation Outlook 2040.

The actual land use scenario used in the LRTP update could be one of these scenarios or a scenario with some features of both.

How Will the Greater Downtown Area Plan Affect Land Use and Zoning in the Study Area?

The Greater Downtown Area Plan is still in draft form at this time. This plan aims to concentrate the highest density and scale of development within the Downtown Loop and the Crown Center/Hospital Hill districts. This plan will encourage compact, mixed use development. In addition, the plan will strive to connect the Downtown Loop and the Crown Center/Hospital Hill districts with a dense transit corridor utilizing Transit Oriented Development generally along Grand Avenue/Main Street

What is Transit Oriented Development?

Transit oriented development (TOD) is a mixed-use area designed to maximize opportunities to use public transit.

How Will the Strategies Affect Land Use and Zoning in the Study Area?

The strategies affects on land use would mostly have to do with noise from the freeway, relocations of homes and businesses, and changes in access, particularly to businesses. Each of these issues is discussed in detail in other parts of Chapter 3. The basic compatibility of the strategies with existing land use and zoning is discussed in the paragraphs below.

No-Build Strategy

The No-Build Strategy would be consistent with local planning in the cities of Kansas City and Independence, MO.

This strategy would have no affect on the existing land use and zoning. The No-Build Strategy is less consistent with MARC's baseline land use scenario and more consistent with MARC's adaptive land use scenario and with the draft downtown area plan. With no capacity additions or substantial improvements to I-70, high congestion may discourage commuting from outside the urban area. However, congestion may also discourage some of the economic development/redevelopment proposed by these plans as it would be harder for people and goods to access central Kansas City.

Improve Key Bottlenecks Strategy

The current and planned zoning and land uses in the Study Area are relatively consistent with the Improve Key Bottlenecks Strategy. This strategy will have minimal affect on the existing land use and zoning and aims to make improvements within the existing right of way to the extent possible. However, the need for right of way may be required in areas near existing bottlenecks. These areas include the Benton Curve, the Jackson Curve, the I-435 interchange, the I-470 interchange, and interchange ramps throughout the Study Area. **Section 3.4 Relocations** discusses the impacts to commercial, residential, and other facilities more specifically.

The Improve Key Bottlenecks Strategy is more compatible with MARC's adaptive land use scenario and with the draft downtown area plan and less compatible with MARC's baseline land use scenario. The Improve Key Bottlenecks Strategy does not add capacity throughout the corridor, thus supporting greater use of existing developed areas and reducing incentive to commute from outside the urban area. It adequately addresses traffic needs from I-435 to downtown. It minimizes the need to acquire developed land in the core of the city of Kansas City compared to the other Build Strategies.

Add General Lanes Strategy

The Add General Lanes Strategy is not consistent with current and planned zoning and land uses in the Study Area. This strategy will affect commercial, residential, and other facilities with the expansion of I-70 to eight lanes, four lanes in each

direction. As the improvements recommended as a part of the Add General Lanes Strategy are wide spread throughout the Study Area, its impacts to land use and zoning are as well. More specific impacts are discussed in **Section 3.4 Relocations**.

The Add General Lanes Strategy is more consistent with MARC's baseline land use scenario and less consistent with MARC's adaptive land use scenario and the draft downtown area plan. The additional capacity may continue to encourage residents to live outside the core of the city as additional lanes will facilitate increased commuting to downtown.

Transportation Improvement Corridor Strategy

The Transportation Improvement Corridor Strategy is not consistent with current and planned zoning and land uses in the Study Area. This strategy will affect commercial, residential, and other facilities with the expansion of I-70 to include a Transportation Improvement Corridor. As the improvements recommended as a part of the strategy are wide spread throughout the Study Area, its impacts to land use and zoning are as well. More specific impacts are discussed in **Section 3.4 Relocations**.

The Transportation Improvement Corridor Strategy is more consistent with MARC's baseline land use scenario and less consistent with MARC's adaptive land use scenario or with the draft downtown area plan. The additional capacity may continue to encourage residents to live outside the core of the city as additional lanes will facilitate increased commuting to downtown.

Identified Preferred Strategy

The current and planned zoning and land uses in the Study Area are relatively consistent with the Identified Preferred Strategy west of I-435. This strategy will have minimal affect on the existing land use and zoning and aims to make improvements within the existing right of way to the extent possible. However, the need for right of way may be required in areas near existing bottlenecks. These areas may include

the Benton curve, the Jackson curve, the I-435 interchange, and interchange ramps throughout the Study Area.

The Identified Preferred Strategy effects on land use are dependant on the improvements selected in the Second Tier studies.

East of I-435, the wider footprint (Add General Lanes Strategy) is less consistent with current and planned zoning and land uses in the Study Area east of I-435 than the Improve Key Bottlenecks Strategy. The Identified Preferred Strategy will affect commercial, residential, and other facilities differently depending on which strategy is selected in the Second Tier studies. **Section 3.4 Relocations** discusses the impacts to commercial, residential, and other facilities more specifically. The Improve Key Bottlenecks Strategy is more compatible with MARC's adaptive land use scenario and with the draft downtown area plan, while the Add General Lanes Strategy is more compatible with MARC's baseline land use scenario.

How Will The Analysis of Land Use Impacts Be Refined in the Second Tier Strategies?

The next step in the environmental stage of this project is to conduct Second Tier studies which will further evaluate and refine the land use needs and impacts. The Second Tier studies will refine the Identified Preferred Strategy and its footprint to avoid or minimize the identified land use impacts where possible. At the time of the Second Tier studies, the MARC 2040 Long Range Transportation Plan and the Greater Downtown Area Plan should be complete allowing for greater analysis of the compatibility of strategies with the final results of these plans.







