

4.0 Future Conditions

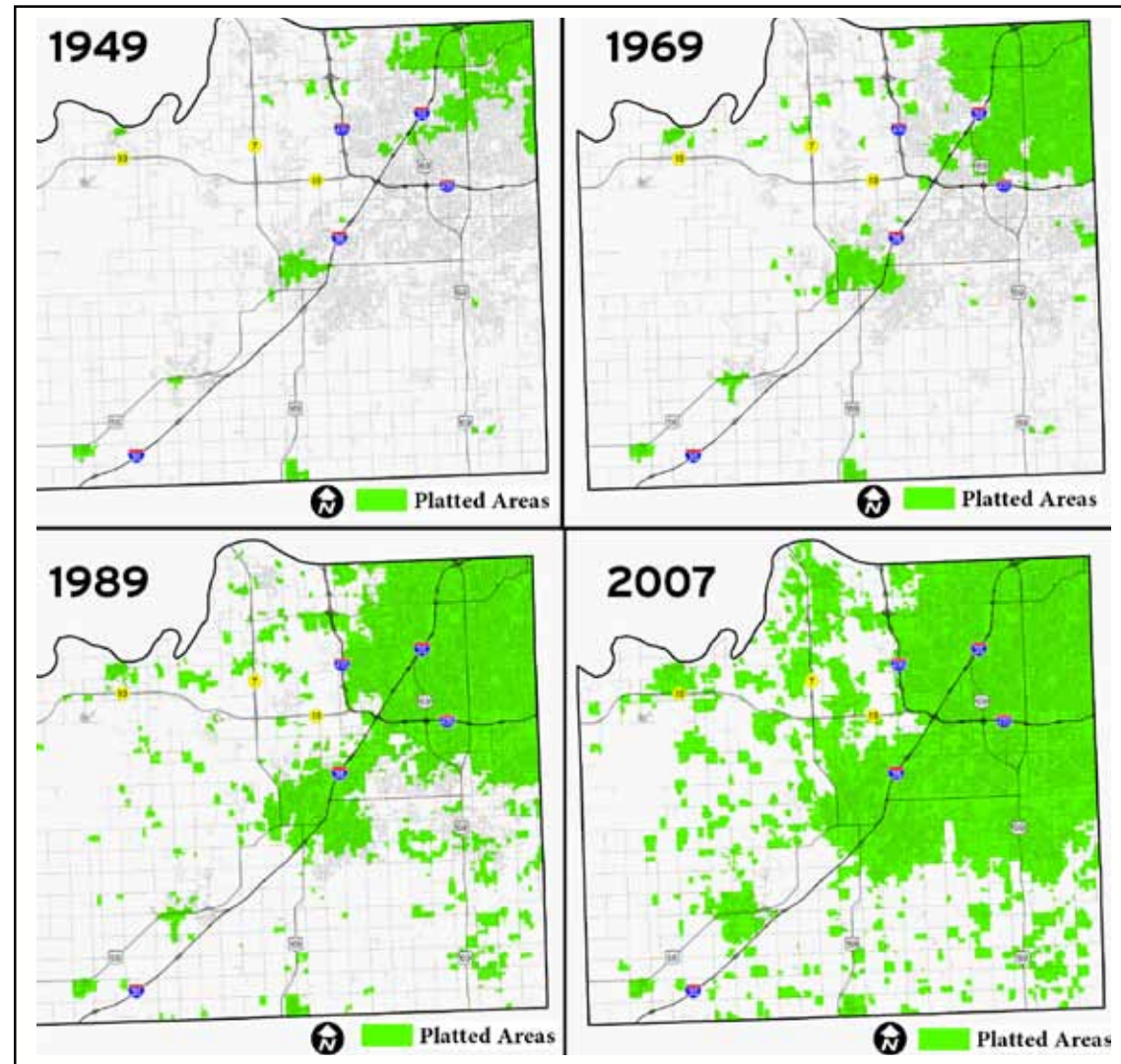
4.1 Regional Influences

Regional Growth Patterns

Johnson County is the fastest growing county in the State of Kansas. As shown in green on the series of historic plat growth maps in Figure 19, Johnson County has grown significantly from 1949 to 2007 and has seen rapid development between 1989 and 2007. Growth patterns have generally been south and west along I-35. The Johnson County Gateway was once on the outer fringe of development and now is in the center of development.

Existing Population

Figure 19 - Johnson County Plats (1949 to 2007)



Source: Johnson County AIMS (2008)

According to the US Census Bureau, Johnson County's current population is estimated to be 516,731. This places Johnson County as the second-largest county in the metropolitan area, behind Jackson County, Missouri. As shown in Figure 20, population density has traditionally been concentrated in the northeast portion Johnson County.

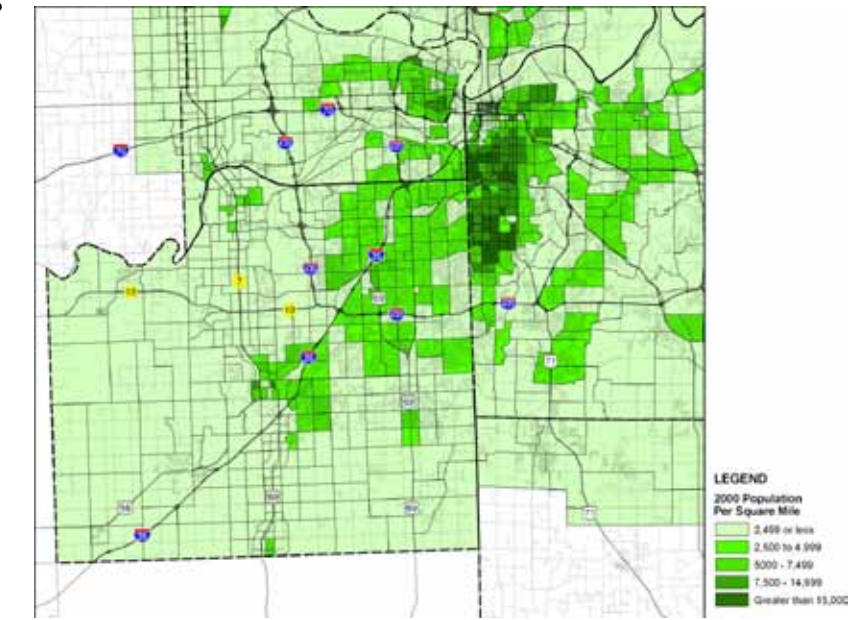
Projected Population Growth

According to the MARC Long Range Forecast, Johnson County is estimated to have a population near 744,000 in the year 2030. Johnson County is projected to account for nearly half of the metropolitan area's growth, making it the most populous county in the region. As shown in Figure 21, population density is spreading out from the northeast to the southwest.

Existing Employment

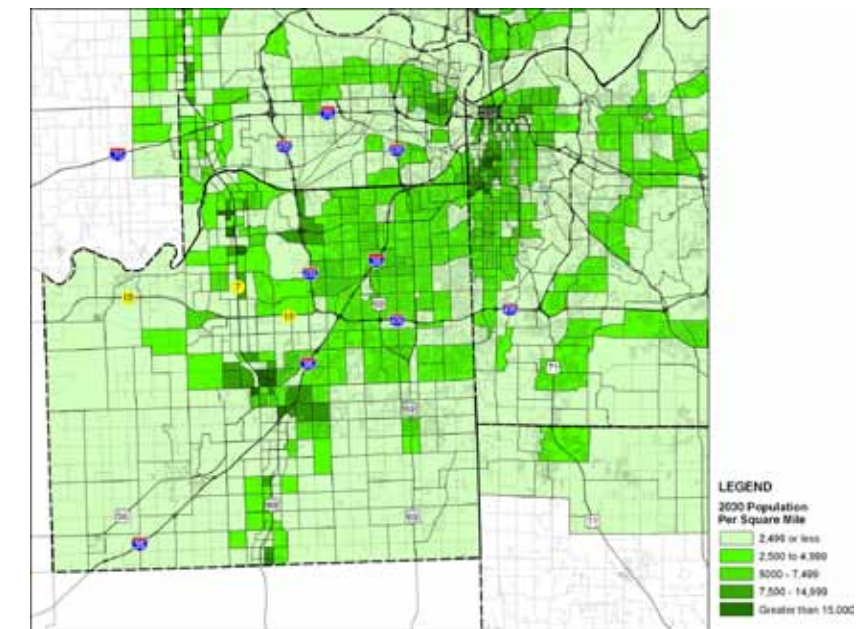
Johnson County has developed into the metropolitan area's major economic and employment generator. According to the US Department of Labor, Johnson County has sustained an average annual job growth rate of 2.7%, compared to 0.6% in the Kansas City Metropolitan Area and 1.4% for the United States. This corresponds to an average net increase of 10,498 new jobs per year. Unemployment in Johnson County remains below the state and national average, and stood at 4.3% as of May 2008. Figure 22 shows the employment density per square mile as of the US Census in 2000.

Figure 20 - Population Per Square Mile (2000)



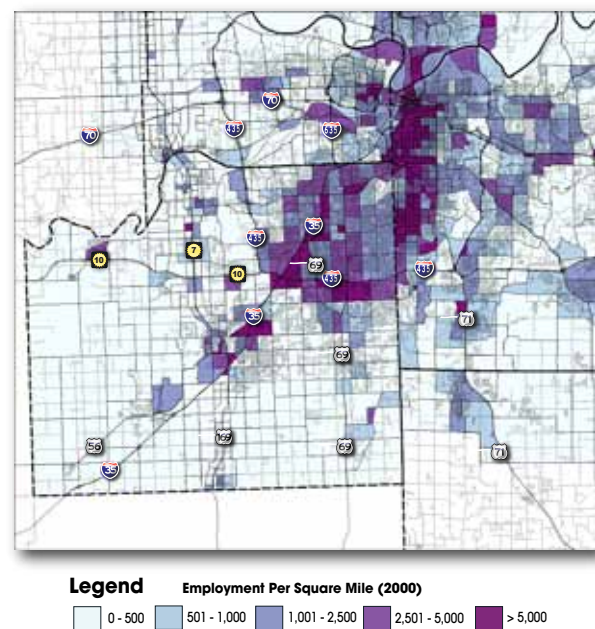
Source: Mid-America Regional Council (MARC) 2004 Long Range Forecasts

Figure 21 - Projected Population Per Square Mile (2030)



Source: Mid-America Regional Council (MARC) 2004 Long Range Forecasts

Figure 22 - Employment Per Square Mile (2000)



Source: Mid-America Regional Council (MARC) 2004 Long Range Forecasts

Projected Employment Growth

According to MARC, Johnson County projects to have 642,695 jobs by 2030. This will place Johnson County as the largest county in the metropolitan area in terms of jobs. Traditionally, Jackson County, Missouri has been the job center for the metropolitan area. As shown in Figure 23, employment density is spreading out from the northeast along the major transportation corridors to the southwest.

Regional Facilities

In addition to the existing regional growth in Johnson County and the surrounding counties, there are a number of regional facilities that are expected to have an impact on the I-435/I-35/K-10 Interchange. These major traffic generators, shown in Figure 24, along with other traffic generators have been incorporated into the MARC travel demand model to develop the traffic forecast.

1. Hotel and Casino Development, Kansas City, Kansas
2. Schlitterbahn Village, Kansas City, Kansas
3. Sunflower Army Ammunition Plant, Johnson County, Kansas
4. Gardner Intermodal Facility, Gardner, Kansas
5. Corporate Woods Office Park, Overland Park, Kansas
6. Richards-Gebauer Intermodal Facility and NNSA Kansas City Plant
7. Kansas State University Biosciences

Hotel and Casino and Development, Kansas City, Kansas

A casino and hotel project was to have been part of a \$705 million, 1.5 million square foot complex with 3,000 slots, 140

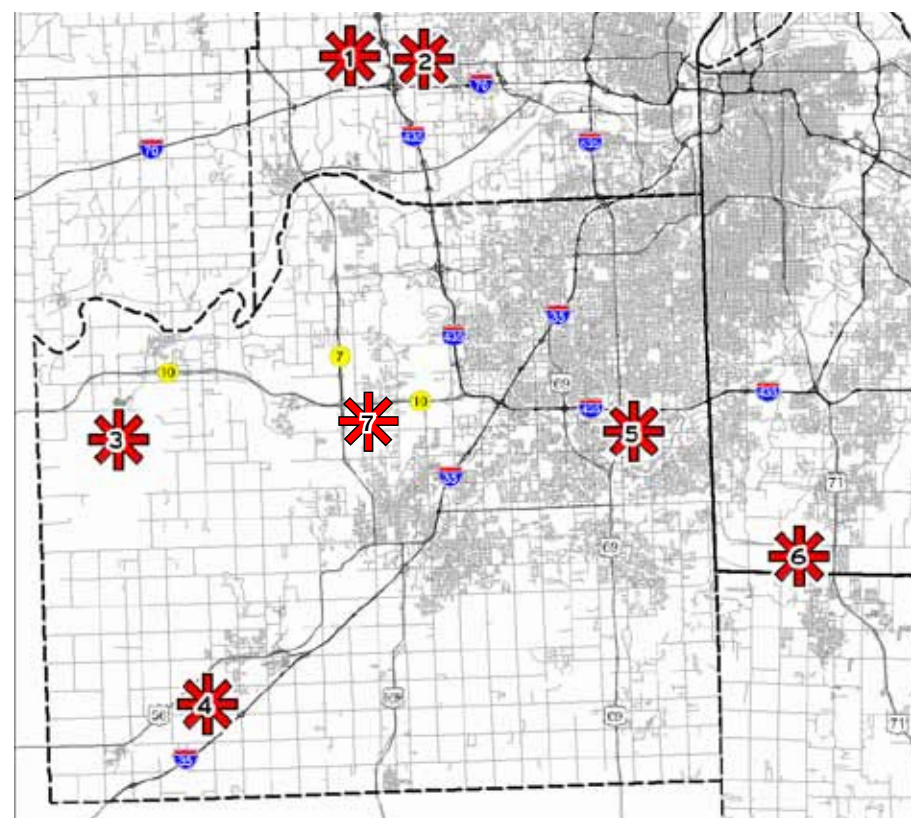
table games, a 300-room hotel, and 275,000 square feet of dining, retail and entertainment venues including a live music venue and a convention center. As part of its incentive package to the State of Kansas, the casino partners International Speedway Corporation and the Cordish Company also pledged to petition NASCAR to reassign a second NASCAR Sprint Cup Series race to Kansas Speedway by no later than 2011.

Due to economic conditions, the proposal was withdrawn in December 2008, with development now pending on a \$400 million Hard Rock branded casino and second NASCAR Sprint Sup series race.

Schlitterbahn Village, Kansas City, Kansas

The Schlitterbahn Village site is a year-round, retail entertainment destination comprised of multiple shopping, dining, lodging and entertainment venues located on a 370-acre track near Village West in Kansas City, Kansas. Construction has begun on the Schlitterbahn Water Resort. These are scheduled to open in July 2009. The balance of the Schlitterbahn Village will continue its development plan for phase 1 through summer of 2011 when it will have a fully integrated Water Resort, 750,000 square feet of retail and over 1,500 hotel rooms.

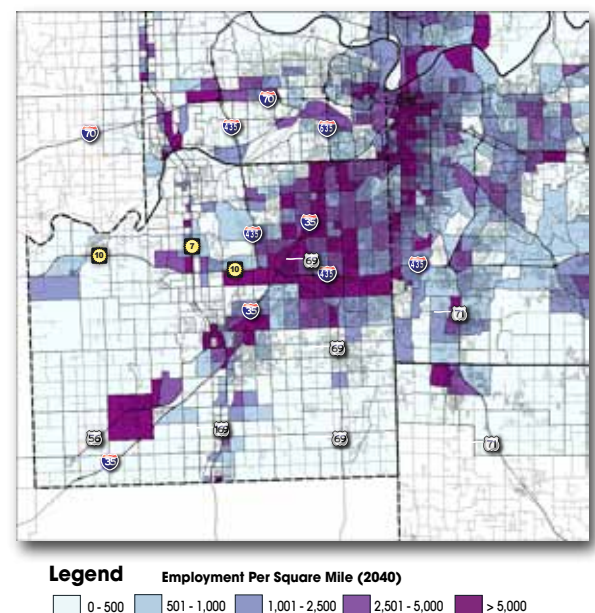
Figure 24 - Regional Traffic Generators



Sunflower Army Ammunition Plant, Johnson County, Kansas

In July 2006, the US Army transferred the 9,065-acre property near De Soto, Kansas, south of K-10, to Sunflower Redevelopment LLC, (a joint venture between Kessinger/Hunter & Company LC and International Risk Group LLC of Denver, Colorado). Sunflower Redevelopment envisions a mix of residential and retail uses with a Kansas State University forestry research facility and a University of Kansas life sciences research park.

Figure 23 - Projected Employment Per Square Mile (2040)



Source: Mid-America Regional Council (MARC) 2004 Long Range Forecasts

Gardner Intermodal Facility "Logistics Park-Kansas City," Gardner, Kansas

BNSF Railway Company and the Allen Group have finalized an agreement to develop the distribution and warehouse facilities at BNSF's proposed rail-hub center in Gardner. The Allen Group, an industrial development firm, has completed land purchase rights and pre-development agreements with BNSF. The entire project site comprises 997 acres in Gardner, Kansas. BNSF will use 418 acres to build its intermodal facility, and the Allen Group will have the right to buy the remaining 579 acres for the development of facilities to surround the rail-truck terminal. The development is called Logistics Park-Kansas City. The massive rail-truck hub project's total investment is expected to exceed \$1 billion and is expected to create up to 13,000 area jobs over a 20-year-period. BNSF expects to open the Gardner intermodal hub in late 2009 or early 2010.

Corporate Woods Office Park, Overland Park, Kansas

The Corporate Woods Office Park is a 294-acre master-planned development with 2,100,000 square feet of office space as well as a 357 room hotel and ancillary retail space. The Shops at Corporate Woods is a 28,000-square-foot open-air center. Today, an estimated 6,000 employees work in Corporate Woods. Four more Corporate Woods office buildings, totaling approximately 1,100,000 square feet, are planned for the future in the northwest corner of the park.

Richards-Gebauer Intermodal Facility

In 2007, the Port Authority and the City of Kansas City, Missouri, completed the sale of portions of the property located at approximately 150 Hwy. and US 71 in Missouri. to CenterPoint Properties. CenterPoint Properties is the master developer for the site and plans to utilize the property for a variety of industrial, distribution, light manufacturing and warehouse uses. Redevelopment efforts are already well underway, through a lease agreement with Kansas City Southern, which operates a sophisticated rail distribution hub on the property.

4.2 Roadway

Past KDOT studies have identified future improvements needed to keep traffic moving safely and efficiently in the area. Past studies in the study area include:

- I-35 Major Investment Study (1999)
- K-10 Corridor Study (2005)
- I-435/US 69 Design (Ongoing)
- I-35 Bus-On-Shoulders Study (Ongoing)
- MARC LRTP Outlook 2035

Figure 25 shows the location of the previous studies.

Figure 25 - Future Planned Roadway Projects



4.3 Transit

The purpose of the Future No Build transit alternative is to assess the effects on transit service in the I-35 corridor if the I-435/I-35/K-10 Interchange is not improved. The horizon year for the assessment is 2040. A key assumption is that Johnson County Transit (JCT) would proceed with the planned improvements to implement bus rapid transit (BRT) on I-35 along with the bus on shoulder (BOS) approach to providing transit vehicles priority over general traffic. No other changes in bus service were assumed. It was assumed that the improvements to I-35 recommended in the 1999 I-35 Major Investment Study would be implemented; these improvements consist primarily of the addition of auxiliary lanes between interchanges. The resultant changes in freeway LOS and speeds are detailed in Section 4.5.

AM Peak Period – Northbound on I-35

The significant reduction in LOS and speeds in the vicinity of 119th Street would have some affect on bus operations. Traffic operations approaching the I-435 interchange would be similar to current conditions; buses moving through the intersection would be able to operate in the left or center lanes and avoid the most severe congestion. Future traffic operations north of I-435 are projected to be similar to current conditions, thus bus operations would not be materially affected. The availability of the shoulder for bus operations through most of this area would also reduce the potential for adverse effects on bus operations. This would likely result in additional transit travel times of 3 to 5 minutes.

AM Peak Period – East/West on I-435

Buses operating on JCT’s K-10 Connector route would not have the option to operate on shoulders, thus impacts resulting from increased traffic congestion would be more likely to directly affect bus operations. In the eastbound direction, traffic operations through the interchange area are projected to deteriorate significantly. The forced flow condition and resultant low speeds would increase transit travel times through the interchange area by 15 to 20 minutes. In the westbound direction, traffic west of I-35 is projected to operate similarly to current conditions, although east of I-35 speeds are expected to decline substantially. This would likely result in additional transit travel times of 3 to 5 minutes. The delays in both directions would translate into a decline in transit level of service and an increase in operating cost.

PM Peak Period – Southbound on I-35

Future traffic operations are projected to deteriorate approaching I-435 but remain about the same south of I-435. The availability of the shoulder for bus operations in the southbound direction north of I-435 would reduce the potential for adverse affects on bus operations. However, the slower speeds with shoulder operation would increase transit travel times by approximately five minutes.

PM Peak Period – East/West on I-435

As with the AM peak period, eastbound traffic operations through the interchange area is projected to deteriorate significantly. The forced flow condition would increase transit travel times through the interchange area by 15 to 20 minutes. In the westbound direction traffic west of I-35 is projected to operate similar to current conditions although east of I-35, speeds are expected to decline substantially. This would likely result in additional transit travel times of 3 to 5 minutes. The delays in both directions would translate into a decline in transit level of service and an increase in operating cost.

In summary, transit operations on K-10 and I-435 would be more than the express bus services operating on I-35. The increase in operating cost would be approximately \$120,000 (representing a 15% increase in the K-10 corridor operating cost) with an additional capital cost of \$400,000 (representing a 20% increase in the K-10 corridor capital cost) for an additional bus as estimated based on fiscal year 2008. The decline in the attractiveness of the service would be significant, with an increase in transit travel time of about 50 percent. Express bus services on I-35 would realize smaller transit travel time increases approximately of five to ten minutes.

4.4 Intelligent Transportation System

Through discussions with KC SCOUT staff, the following future enhancements are expected to impact traffic in the interchange complex:

- Ramp metering on I-435
- Additional vehicle detectors
- Strategic Enhancement of CCTV Surveillance Coverage

Ramp metering is programmed to be deployed along I-435 between the I-470/U.S. 71 interchange and the Metcalf Avenue interchange. The ramp meters deployed on the on-ramps along I-435 will allow traffic entering I-435 to be regulated. The ability to limit traffic loading on I-435 is restricted by balancing adverse traffic impacts on crossroads at interchanges and because not all ramps are metered.

To allow traffic flow and travel time information to be provided along I-35 south of I-435, I-435 west/north of I-35 and on K-10, additional vehicle detectors will be deployed. Radar detection units installed on the side of the roadway will be deployed at a spacing of approximately 1/3 mile.

At critical interchange locations where complex traffic interaction is required and major streams of traffic intersect, redundant CCTV camera coverage can be useful. Cameras providing redundant views allow multiple incidents to be monitored and managed. They also allow one camera to focus on the incident location while other cameras are available to monitor the traffic impacts extending away from the incident. One specific location identified as a strategic location for additional coverage is on top of the rock cut on the south side of K-10, just east of Renner Road. An additional camera would also be beneficial along I-435 in the vicinity of the 95th Street interchange.

4.5 Traffic

In 2008 there were approximately 230,000 vehicles that traveled through the I-435/I-35/K-10 Interchange. By 2040, traffic is expected to grow to 360,000 vehicles, even if no additional capacity is provided through the Interchange study area beyond what is already planned. This represents a 56% increase within the study area. Figures 26 and 27 show the 2040 No-Build AM and PM peak hour traffic. Appendix A shows the detailed traffic demand for the highway and arterials.

The increase in traffic from 2008 to 2040 would increase a typical three mile drive through the interchange during the PM peak hour from four minutes today to a projected 16 minutes by 2040. This additional traffic would also increase the percentage of the interchange that operates under congested conditions from 20% today to 50% in the future.

Figure 26 - Future 2040 No-Build AM Traffic

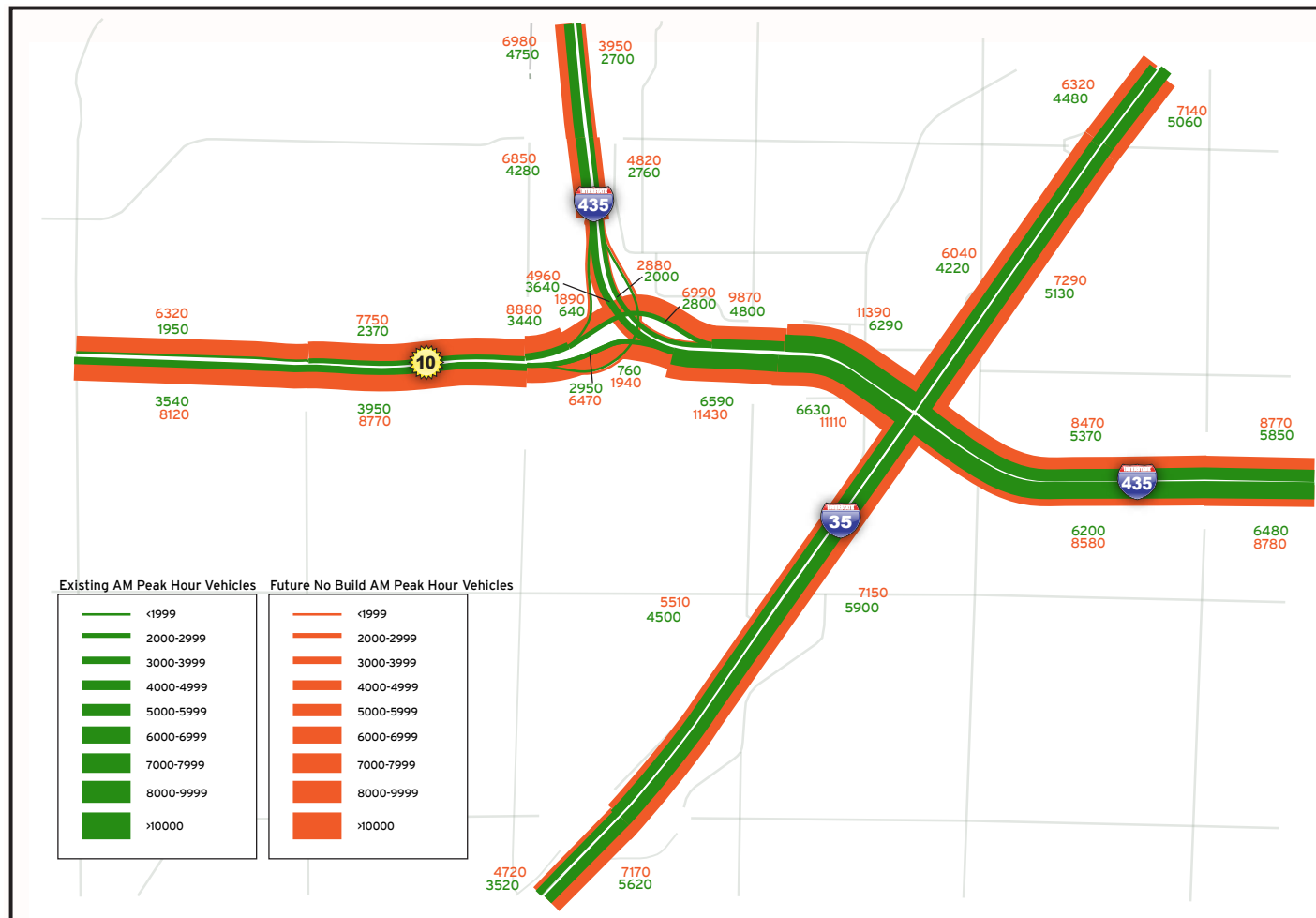


Figure 27 - Future 2040 No-Build PM Traffic

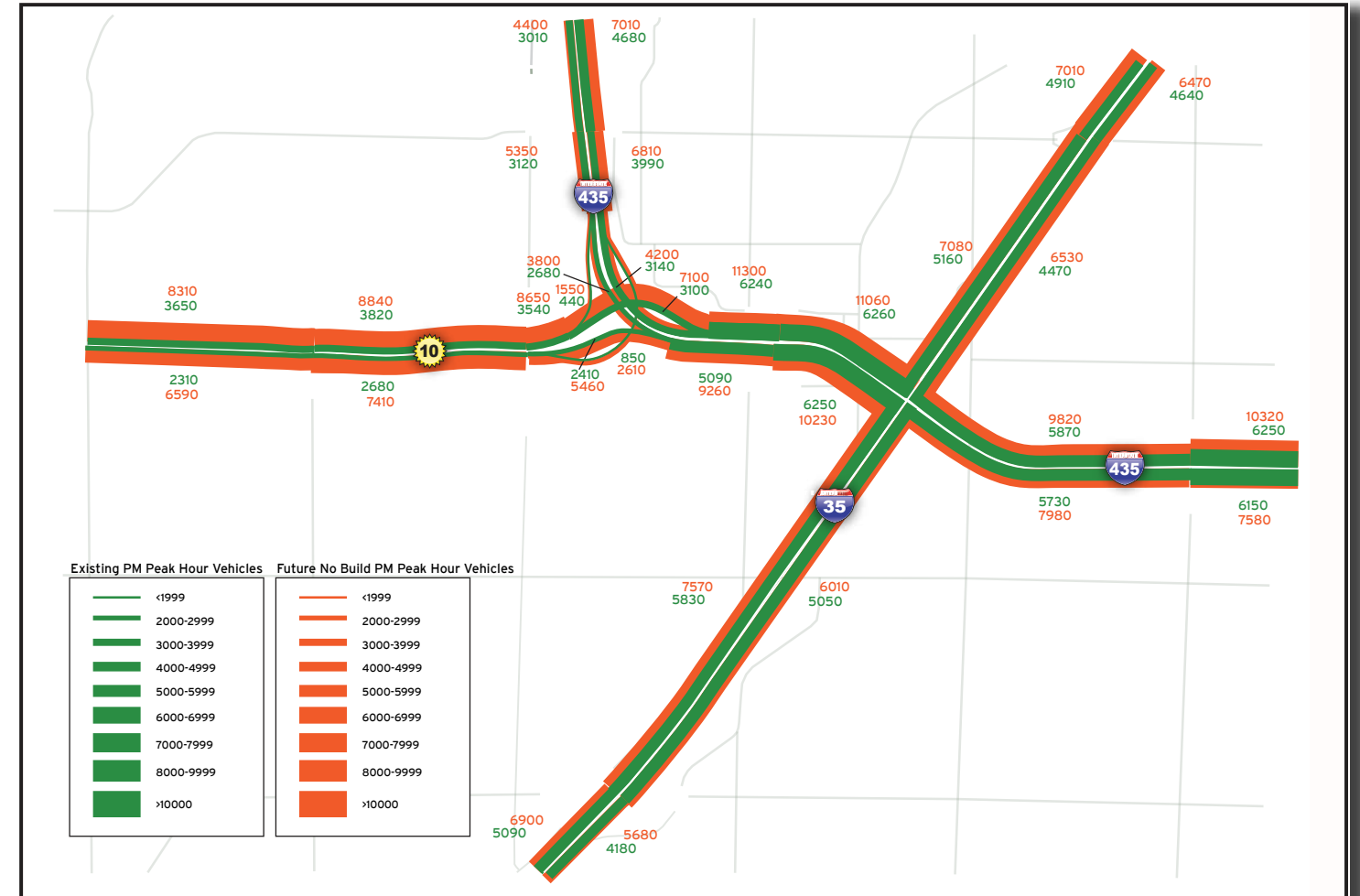


Figure 28 displays the 2040 No Build AM level of service, while Figure 29 depicts the 2040 No Build PM level of service. Every inbound leg of the interchange has a poor level of service due to the lack of capacity in the center of the interchange. More detailed level of service results are shown in Appendix A.

Figure 28 - Future 2040 No-Build AM Level of Service

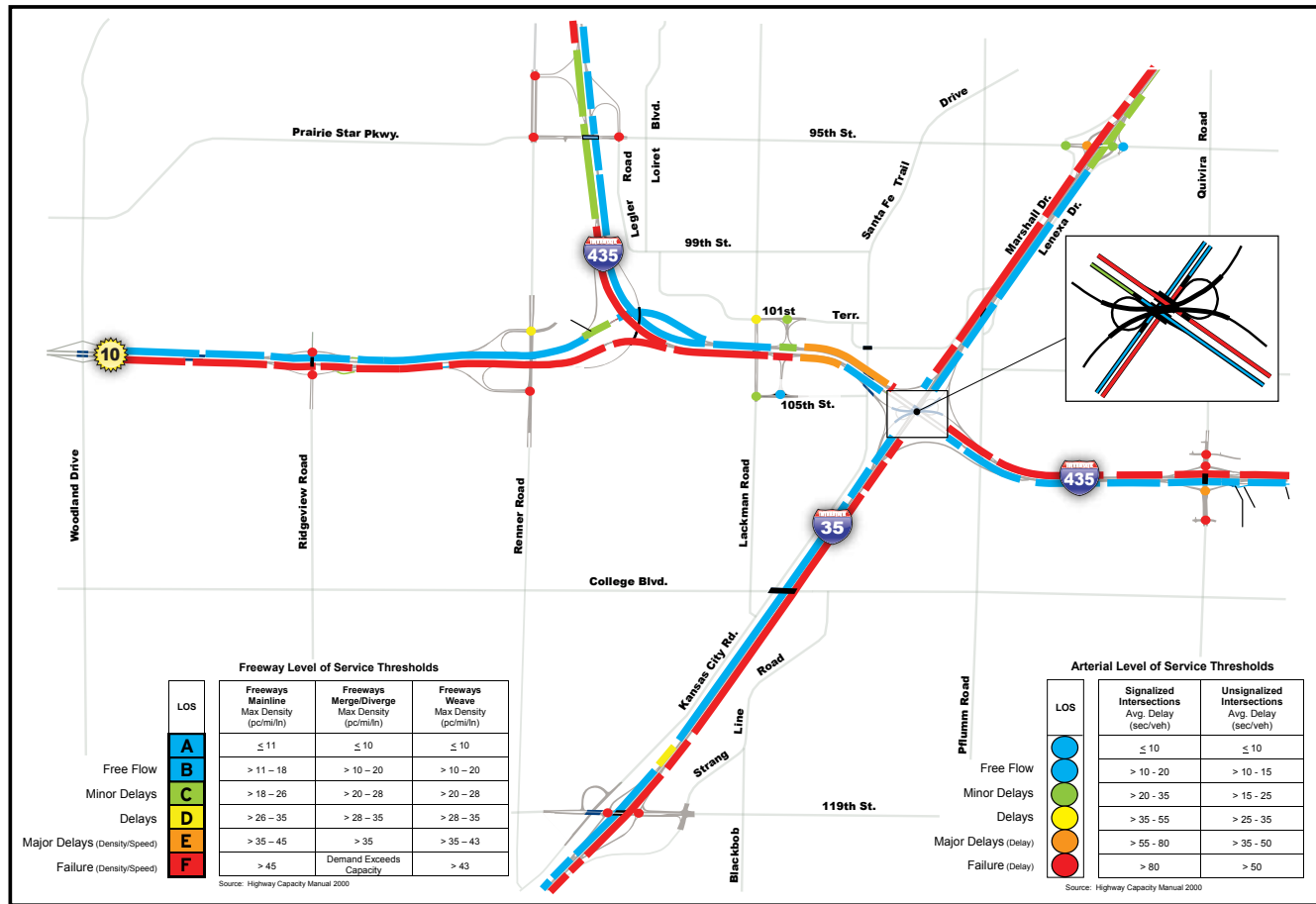
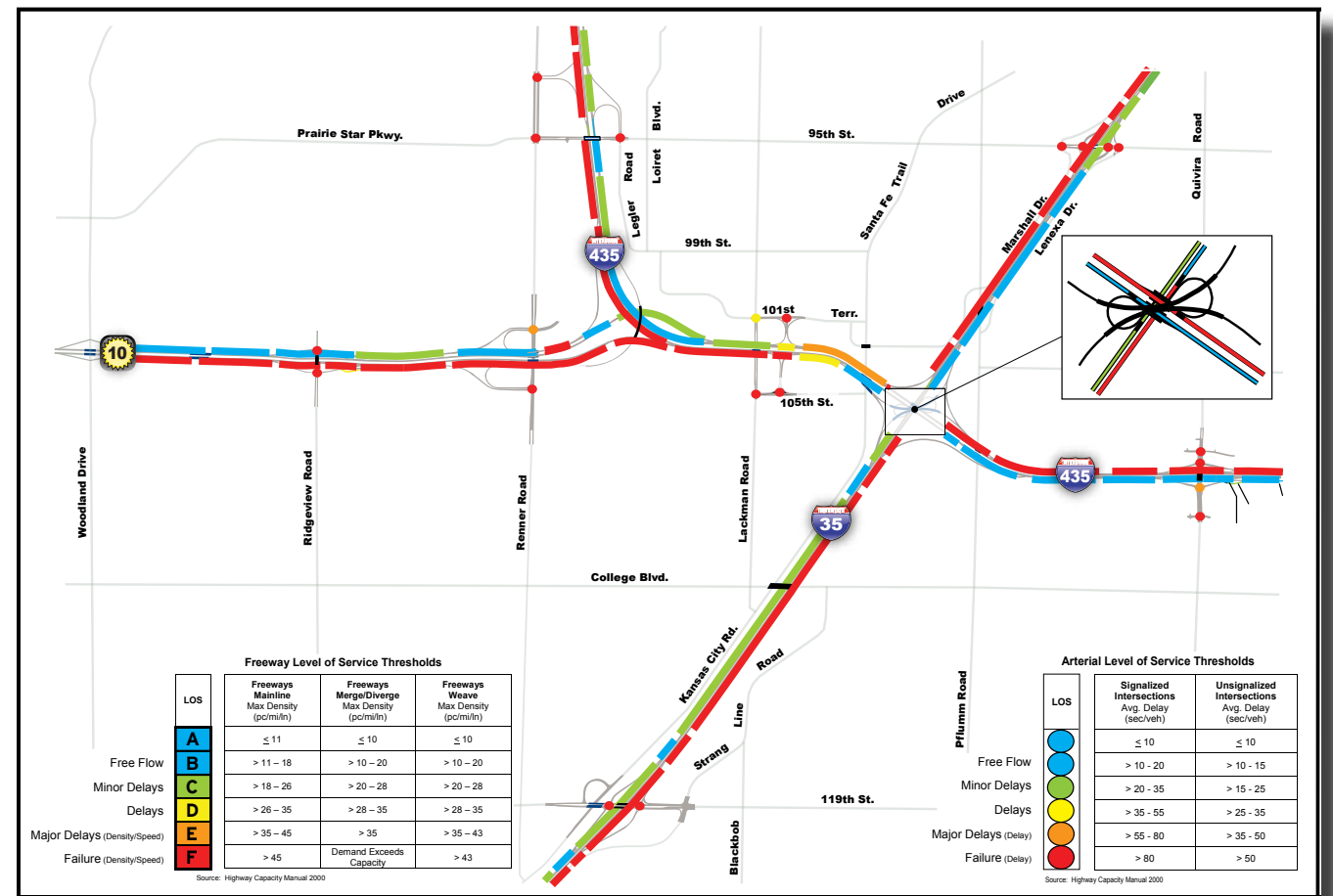


Figure 29 - Future 2040 No-Build PM Level of Service



5.0 Stakeholder Engagement

During the Regional Study, the public engagement process began its activities by creating an identity around the study area and introducing the goals and objectives of the study through various mechanisms, including a web site, advisory committee and the first public meeting. All stakeholder engagement activities conducted in the Concept Study are available on CD upon request and are summarized below:

5.1 Community interviews

In October and November of 2008, the study team conducted a series of community interviews with stakeholders having an interest in the study of I-435/I-35/K-10. Businesses, commuters, regional interests, transit providers, and the chamber of commerce were interviewed to gather information and feedback on issues and concerns regarding the study.

Generally, most people thought the interchanges functioned adequately. They suggested it was congested at peak times in the morning and early evening, but the duration of that congestion was short-lived. A few people noted that Kansas has a good highway/road system and we are “spoiled with the roads we have” and compared to other metropolitan areas, we don’t have congestion issues. The top three issues and concerns with the interchange area were:

- Safety and mobility.
- Identifying funding to support such a large project.
- Construction delays and management.

5.2 Advisory Group

An advisory group was established to provide local input and perspectives, as well as a forum for constructive dialogue relative to the project and/or specific project challenges. Twenty-two group members were selected including area business representatives, property owners, and those with quality of life and environmental interests. The group is scheduled to meet up to 8 times over the course of the study, and in conjunction with technical milestones.

5.2.1 Meeting 1—March 2, 2009

The first meeting was held at the KDOT Metro Area Office in Olathe, Kansas from 11:30 to 1:30 pm. A folder with handouts was provided and a power point presentation guided the discussion. The meeting agenda included:

- Welcome and Introductions
- Advisory Group Expectations
- Project Approach/Schedule

- Existing Conditions
- Stakeholder Engagement
- Upcoming Events

The goal of the meeting was to provide an overview of the study process, review expectations of the advisory group and introduce the existing traffic conditions in the interchange area.

5.2.2 Meeting 2—April 8, 2009

The second meeting was held at the KDOT Area Metro Office in Olathe from 11:30 to 1:30 pm. A powerpoint presentation guided the discussion. The meeting agenda included:

- Welcome
- Questions from last meeting
- 2040 Traffic – Future no-build traffic projections and level of service
- Preliminary purpose of the study statement
- View of web site—On-line survey
- Online survey 2—Alternative Transportation Considerations
- May 14 Public Meeting format/materials
- Questions/comments

The second meeting allowed the advisory group to discuss the future traffic projections and impacts that traffic will have on development, growth and quality of life. The advisory group provided thoughts about alternative transportation considerations and questions to ask in the second online survey. Additionally, the group discussed the purpose statement for the study.

5.3 Web site

Since the I-435/I-35/K-10 interchange area has stakeholders and users from numerous communities, online outreach is being used to provide updates and information in partnership with other traditional outreach approaches. The web site was developed to provide information updates on a regular and frequent basis. The site launched February 25, 2009.

The www.jocogateway.com web site is linked to the study partner web sites.

Web site visits, as of May 28, 2009:

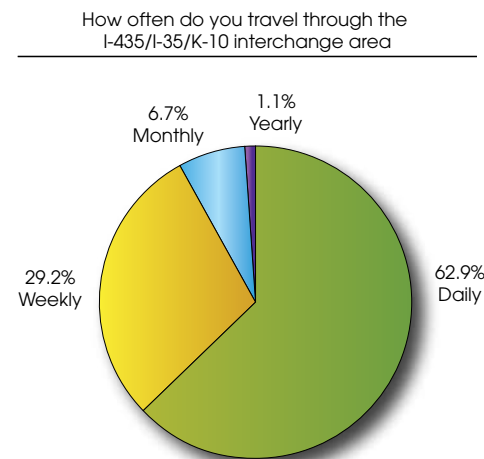
- 520 visitors with twice as many repeat visitors.
- 59% of traffic is direct visitors—using jocogateway.com
- 33% of traffic is from referring sites
 - o Jocogov.org
 - o Ksdot.org
 - o Marc.org
 - o Lenexa
 - o OP
 - o Lawrence Journal
 - o Facebook
- 7% of traffic is from search engines (google, yahoo, etc)
- Average time on site was about 4:35 minutes.

5.4 Online surveys

5.4.1 Survey 1-- Interchange Use

Survey 1 focused on how people use the interchanges and what their experiences are when driving through the study area. The survey was available from February 26, 2009 through June 22, 2009. 96 people have taken the survey. While not meant to be statistically valid, the survey provides a good representation for those using the area and their travel experiences.

Figure 30 - On-Line Survey 1 - Interchange Use



Question 1: Asked how often people used the interchange.

When asked about their experience driving through the study area, respondents expressed the following areas of concerns, in order:

- Congestion
- Weaving/Merging
- Other/dangerous

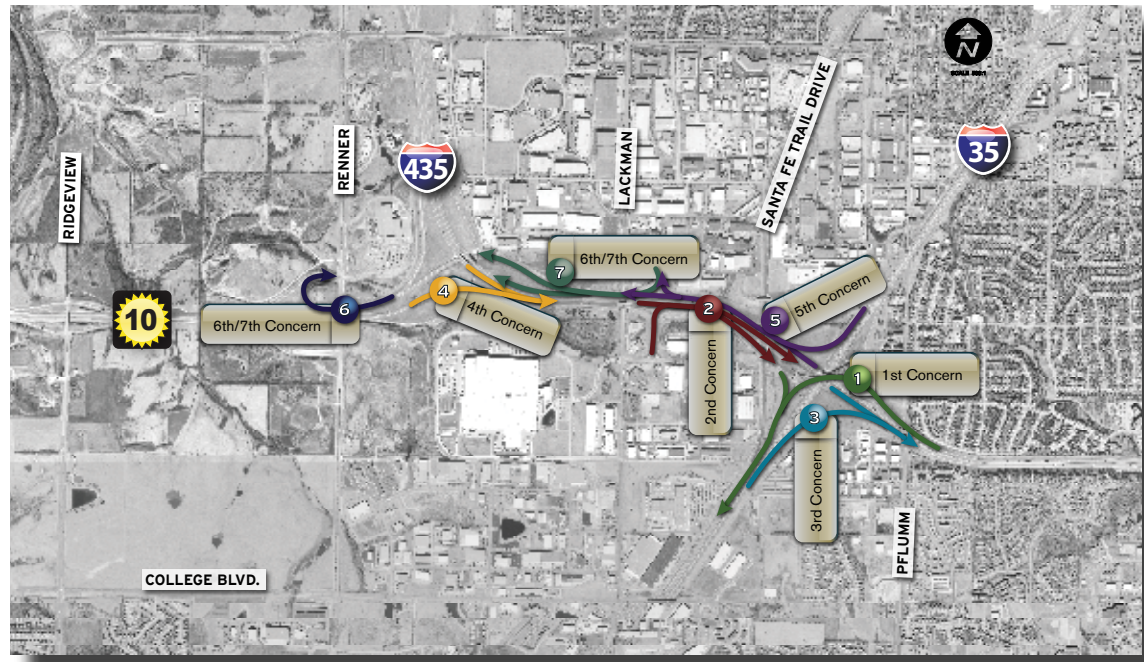
When asked about the biggest issue in the interchange area, responses fell into the following categories:

Figure 31 - On-Line Survey 1 - Biggest Issue

What do you see as the biggest issue with this interchanges area?							
	Most Important 1	More Important 2	Neutral Important 3	Less Important 4	Least Important 5	Rating Average	Response Count
Safety — traffic conflicts exiting and entering freeway	50	33	2	0	0	1.44	85
Congestion — traffic back ups during rush hours	35	36	7	1	3	1.79	82
Pavement condition — pavement deteriorating/constant repairs	1	7	47	21	3	3.23	79
Directional signing — wayfinding and route labeling	0	6	20	48	11	3.75	85
Other	5	2	3	1	24	4.06	35
Other (please specify and identify relative importance)							12
answered question							91
skipped question							5

Areas of the interchange that were identified as top concerns are noted on the map below:

Figure 32 - On-Line Survey 1 - Areas of Concern

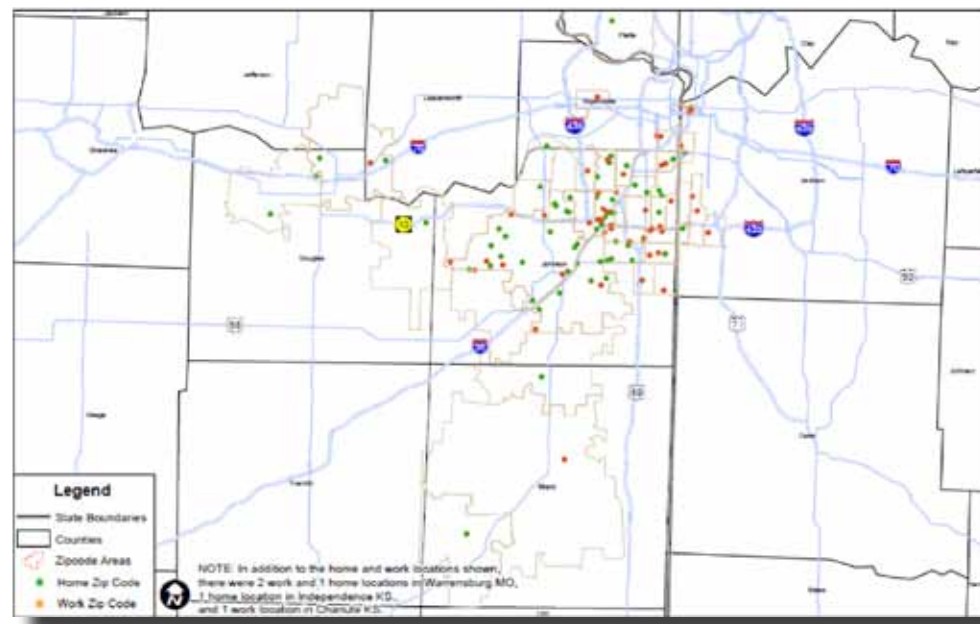


Suggestions for improving the interchange were categorized into four areas:

- More lanes/lane length
- Merging/weaving
- Access/eliminate Lackman
- Other

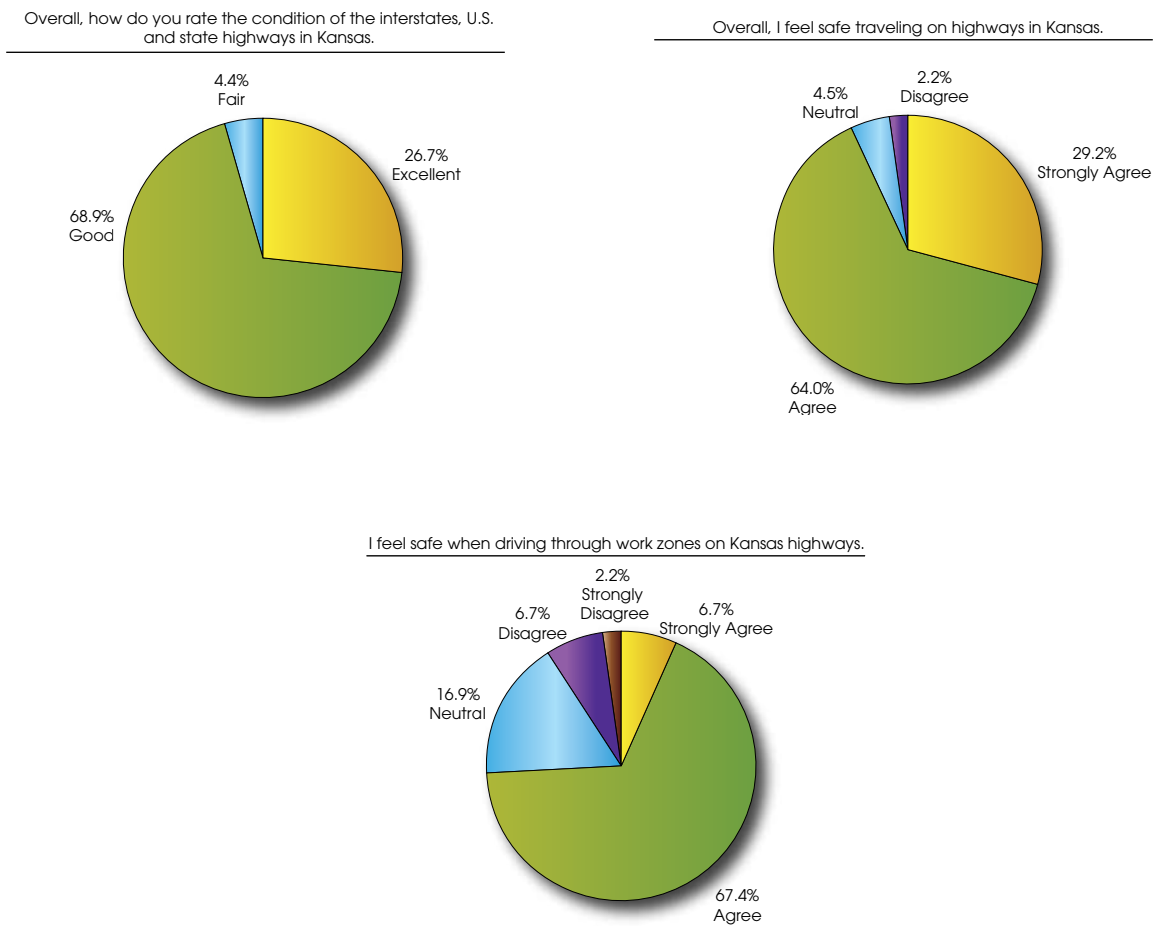
Respondents were asked to provide their home and work ZIP codes to provide an idea of where people were going to and from. Most respondents were from Johnson County, but responses indicate the true regional nature of this interchange as noted by the wide dispersement of dots.

Figure 33 - On-Line Survey 1 - Work/Home Location of Respondents



Three general questions were asked related to the Kansas highway system.

Figure 34 - On-Line Survey 1 - Feedback on Kansas Highways



5.4.2 Survey 2—Alternative Transportation Considerations

Improving safety and reducing congestion are the two primary goals of the Johnson County Gateway Study. To achieve these goals, many options were reviewed including how and if, alternative transportation solutions may be incorporated.

The second online survey was available from May 21, 2009 through October 12, 2009 and had 38 respondents.

- 74% of respondents think public transit should be considered as part of the solution for improving safety and reducing congestion in this interchange area.
- Only 3% of those who responded use public transit in this interchange area.

- Frequency of bus service and proximity to destinations (employers and other attractions) would motivate people to use public transit through this interchange area.
- The average time spent delayed in traffic is 5-10 minutes.
- The response for the acceptable travel delay was varied, with the majority of respondents saying that there should never be a delay, while others identified specific incidents as acceptable reasons for delay. One person noted that compared to other areas of the country, a delay under 10 minutes is not that bad.
- The majority of respondents would consider Bus Rapid Transit through this interchange area if it were available as an alternative to driving in congestion. Other options listed were car pooling, working from home and utilizing staggered work hours.
- Respondents were split when asked if they were willing to pay for less congestion
- Most respondents did not think bicycle pedestrian crossing access was important in this study area.
- Other transit needs included HOV lanes, better connections and/or options for transit to places other than downtown.

5.5 Public Meeting #1

Public Meeting #1 was held Thursday, May 14, 2009 from 4:30 p.m. to 7:30 p.m at the Lenexa Conference Center. The purpose of the public meeting was to present the existing conditions identified in the regional study phase and demonstrate how future traffic projections could impact congestion and safety within the study area. The meeting was an open house style meeting with display boards, an introductory presentation to provide information, and a traffic video simulation. Forty-five people signed in at the meeting.

Comment included

- Importance of access for businesses
- Concern about weaving movements and congestion issues
- Options for improvements

5.6 Media

Since the study began, two press releases were sent out to local media, one to announce the kickoff of the study and the second to announce the public meeting. For the two weeks before the public meeting radio spots announced the meeting and the web site address. Metro Networks was used, which includes 17 FM and AM stations. Sixty-two spots were aired during the morning and afternoon drive time hours.

5.7 Outreach

To provide additional information on the study progress, electronic newsletters have kept stakeholders and nearby residents involved. Two electronic newsletters were sent out in March and May. The emails can be forwarded to others interested in the study and people can sign up to be put on the mailing list through the web site or on the electronic newsletter. The mailing list has expanded from the initial list of 143 to 176 from February to May 2009.

- March 3, 2009 - announce study
- May 1, 2009 - announce public meeting and provide study update

6.0 Purpose and Need for the Project

A Purpose and Need Statement is a fundamental requirement when developing a proposal that will require future National Environmental Policy Act (NEPA) documentation. Clarity of purpose and confirmation of need are in themselves sound practices when developing large-scale proposals requiring public expenditure. The intention of this guidance is to create a uniform approach within KDOT and with KDOT partners in developing Purpose and Need Statements.

Although this is a concept study and not an environmental document, it is helpful for the study partners to develop the Purpose and Need statement during this phase of project development. The Regional Study identified the need for improvements. As a result, the recommended Purpose and Need Statement is:

The purpose of this study is to develop an ultimate interchange concept which facilitates traffic and can be implemented in phases supporting both economic development and quality of life. Due to the anticipated increase in the movement of people and freight in and through the interchange area, the study will consider a range of multimodal approaches to meet current and future transportation needs through the year 2040. The study will respond to these needs in a manner that improves safety, mobility, and access.

Glossary

Advanced Traffic Management Systems (ATMS)	ATMS technologies apply surveillance and control strategies to improve traffic flow on roadways.
AM Peak Period	The time period in the morning when the greatest demand for transportation occurs. The AM Peak Period is typically from approximately 7:00 AM to approximately 9:00 AM.
Arterial Road	A roadway intended to carry "through" traffic, designed with restricted access.
Bridge Health Index	Rating system to determine condition of the bridge. The BHI is on a scale of 1-100 with 100 being the highest.
Bus Rapid Transit (BRT)	BRT is a high speed bus system operated within an exclusive right-of-way. BRT incorporates exclusive transitways, modern stations, on-board fare collection, high-tech vehicles and frequent service. BRT systems can be built incrementally and designed for vehicles – rather than people – transfer from local bus routes to the high speed lines.
Bus	A transit mode comprised of passenger vehicles with rubber tires operating on selected routes and schedules over roadways. Vehicles are powered by diesel, gasoline, battery, electricity or alternative fuel engines contained within the vehicle.
Bus Routes	Predetermined paths on streets or guideways with designated stops or stations.
Bus on Shoulders	Buses or other transit vehicles are allowed to use the freeway shoulder to bypass stopped or slow traffic under certain conditions.
Collector Road	A roadway linking local road traffic to an arterial roadway, are classified as collector roadways.
Congestion	A traffic condition characterized by slower speeds, longer traffic times, and a large number of vehicles on the road.
Express Buses	Bus routes where passengers are picked up in outlying suburban areas and then travel non-stop to a single high density area such as downtown Kansas City.
Expressway	Roadways not on the Interstate Highway System with limited access points designed to move high volumes of traffic at high speeds. Access to Expressways is provided at major street intersections and occasionally at an interchange.
Federal Highway Administration (FHWA)	A Federal agency that approves and oversees highway projects using federal funds.
Growth Management	A general term used regarding regulation of new land use and development. Growth management is often associated with the attempt to control urban sprawl.
Headway	The time interval between vehicles moving in the same direction on a particular route.
High Occupancy Vehicle (HOV)	Passenger vehicles or mass transit buses carrying one or more passengers (excluding the driver).

HOV Lanes	Generally, a term for carpool lanes. HOV lanes include an exclusive or controlled access right-of-way that is restricted to high occupancy vehicles (buses and/or passenger cars/vans carrying one or more passengers) for a portion or all of the day.
Interstate Highways	Limited access roadways designed for high speed travel over long distances. Interstate highways generally connect large metropolitan areas or serve as a "by-pass" around a large metropolitan area.
Intelligent Transportation System (ITS)	The application of advanced technologies to improve the safety and efficiency of transportation systems.
Level of Service (LOS)	A qualitative measure that characterizes operational conditions within a traffic stream and their perception by motorists and passengers. The descriptions of LOS categories characterize traffic flow conditions in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort and convenience. The LOS categories range from "A", which is full free flow traffic conditions, to "F" which is complete gridlock. LOS is C signifies full but constant traffic flow with only occasional interruptions.
Limited Access	Roadways with access limited to specific points with arterial or other limited access roadways. Access rights along the roadway right-of-way have been purchased by the government entity responsible for the roadway thus eliminating individual property access to the roadway. Limited access roadways are designed to facilitate the movement of high traffic volumes at high speeds over great distances.
Local Road	A road that serves individual residences or businesses and distributes traffic to collector and arterial roadways.
Long Range Transportation Plan (LRTP)	A transportation plan developed by the MPOs in partnership with transit agencies and the KDOT to encapsulate at least 20 years of transportation planning and policy.
Metropolitan Planning Organization (MPO)	The areawide agency charged with the conduct of the urban transportation planning process. In this 5-county area, the MPOs include the Mid-America Regional Council (MARC) and the Lawrence/Douglas County MPO. Together with the KDOT, MPOs carry out the planning and programming activities necessary for Federal capital funding assistance. The MPOs are designated by agreement among the various units of local government and the Governor.
Mode	Refers to a means of transportation (auto, bus, rail, pedestrian, bicycle, etc.).
National Environmental Policy Act (NEPA)	Federal legislation signed into law in 1970 that promotes the enhancement of the environment. The law requires that federal agencies prepare a statement of environmental impact to accompany any action that is "major", "significant", or "federal".
PM Peak Period	The time period in the afternoon or evening when the greatest demand for transportation occurs. The PM Peak Period is typically from approximately 4:00 PM to approximately 6:00 PM.
Public Transportation	As defined in the Federal Transit Act, transportation by bus, rail, or other conveyance, either publicly or privately owned, providing to the public general or special service (but not including school buses, charter or sightseeing service) on a regular and continuing basis. Public transportation is also synonymous with the terms mass transportation and transit.
Right-of-Way	Real property rights (whether by fee simple ownership, by easement or by other agreement) acquired across land for a purpose (i.e., transit facilities, roadways, sidewalks and utilities).

Glossary and Acronyms

Roadway Functional Classification	A system of classifying roadways based on their function (the type of traffic typically handled by the roadway) rather than their capacity or location. Roadways are classified as Freeway, Major Arterial, Minor Arterial, Collector and Local from the highest, most intensive function to the lowest.
Smart Bus	Transit vehicle equipped with ITS applications.
Urbanized Area	An area defined by the U.S. Census Bureau that includes one or more incorporated cities, villages and towns (central place) and the adjacent densely settled surrounding territory (urban fringe) that together have a minimum population of 50,000 persons.
Vehicle Hours [miles]	The hours (miles) a vehicle travels, from the time it pulls out from its garage to go into revenue service to the time it returns to the garage from revenue service. For conventional scheduled services, vehicle hours include revenue time, layover time and deadhead time.
V/C Ratio	Used as a principal measure of congestion. The "V" represents the volume or the number of vehicles that are using the roadway at any particular period. The "C" represents the capacity of a roadway at its adopted LOS. If the volume exceeds the capacity of the roadway (volume divided by capacity exceeds 1.00), congestion exists.
VISSIM Model	A traffic flow simulation modeling software used to replicate and project traffic conditions in an area based on data. VISSIM is the manufacturer of the software.
Zoning	The traditional method of allocating land uses to land. Zoning is enacted and enforced by local governments (city or county).

Acronyms

- AG – Advisory Group
- AADT – Average Annual Daily Traffic
- ATMS – Advanced Traffic Management Systems
- AVL – Automatic Vehicle Location
- BOS – Bus on Shoulder
- BHI – Bridge Health Index
- BNSF – Burlington Northern Santa Fe Railroad
- BRT – Bus Rapid Transit
- CAD – Computer Aided Dispatch
- CCTV – Closed Circuit Television
- CMS – Congestion Management System
- CTP – Comprehensive Transportation Program
- DMS – Dynamic Message Signs
- DOT – Department of Transportation
- EIS – Environmental Impact Statement
- FHWA – Federal Highway Administration
- GIS – Geographic Information System
- GPS – Global Positioning System
- HOV – High Occupancy Vehicle
- ITS – Intelligent Transportation Systems
- JCT – Johnson County Transit
- KDOT – Kansas Department of Transportation
- LPA – Locally Preferred Alternative
- LOS – Level of Service
- LRTP – Long-Range Transportation Plan
- MARC – Mid-America Regional Council
- MIS – Major Investment Study
- MPO – Metropolitan Planning Organization
- NEPA – National Environmental Policy Act
- TAZ – Traffic Analysis Zone
- TDM – Travel Demand Management
- TMC – Traffic Management Center
- V/C – Volume to Capacity Ratio