

Meeting Summary

IMPROVE I-70 ADVISORY GROUP

1st Meeting
Holiday Inn Select
Columbia, Missouri

September 19, 2002

This is a summary of the first meeting of the Improve I-70 Advisory Group. It summarizes key informational and action items from the meeting.

GENERAL

Members Present

Members of the Advisory Group attending the initial meeting: Bernie Andrews, Ed Baker, Bob Bechtold, Elaine Blodgett, Susan Clark, Chip Cooper, Roy Dudark, Dave Griggs, Chris Janku, Kory Kaufman, David Mink, Larry Moore, Tom Moran, Lorah Steiner, Garry Taylor, Bob Walters.

Dennis Donald and John Huyler of The Osprey Group facilitated the meeting.

Materials Available at the Meeting

Materials available for discussion at the meeting, in addition to the agenda, included:

- A list of the Improve I-70 Advisory Group membership;
- A decision-making flow chart that depicted graphically the general flow of information, advice, recommendations and decisions that will be made during the I-70 Second Tier Environmental Studies in Columbia;
- Draft operating agreements that described the purpose of the Advisory Group and the roles and expectations for the Advisory Group and the facilitators;
- A summary of issues and criteria from The Osprey Group survey and report;
- A draft Columbia Area Project Schedule, which outlined a process of screening the three corridors, developing preliminary alternatives, and evaluating and screening these alternative that is projected to be complete by the end of 2003 (the formal EIS process will take considerably longer); and
- Correspondence from the City of Columbia to the Missouri Department of Transportation and MoDOT's response to the City.

Meeting Goals

- Discuss and accept Operating Agreements for the Advisory Group;

- Create understanding of the relationship between the overall planning process and the Group's input;
- Review key issues and criteria for making choices among I-70 corridor alternatives.

SUMMARY OF ISSUES AND INPUT FOR THE DOCUMENTS

Welcome

Mr. Roger Schwartz, District Engineer from the Missouri Department of Transportation, opened the meeting by welcoming everyone and thanking the members of the Advisory Group for their willingness to participate in this effort.

He stressed that this is obviously something that is very important to MoDOT, because I-70 is the major highway corridor going across the State of Missouri. MoDOT has created this Advisory Group in Columbia to help the Department gain community input about the ultimate decision for improving Interstate 70 in the Columbia area.

The reality is MoDOT does not have the funding available today to build the ultimate I-70 improvements. But MoDOT believes it is important to conduct this planning in a thoughtful way recognizing that the planning process is both necessary and time-consuming. Even though funding is not available to build the ultimate project, there are incremental resources to make some improvements. Those improvements will be made in the context of the ultimate goal for I-70. Mr. Schwartz cited the I-70 and 63 interchange as a case in point.

He noted that this is purposely a diverse group with differing viewpoints about the I-70 improvement options in Columbia. He commented that these decisions will be difficult, but he hoped that this process will lead to better education for the community, better community input to MoDOT, and perhaps some consensus on a solution, a solution that is best for Columbia, Boone County and the State of Missouri.

Operating Agreements and Group Composition

The Group reviewed and discussed the proposed operating agreements. One part that was highlighted was the decision-making process. By law, MoDOT has the responsibility for making final decisions about the improvement of I-70. As the name of the Group implies, it is advisory to MoDOT on matters of general interest to the community as they relate to the planning, design and construction of the interstate improvements. There will be no votes and consensus is not required. At the same time, it might be useful for the Group to find common ground on a range of issues it will be discussing. Representatives from MoDOT will attend every meeting, a transcript of the full discussion will be produced, and a meeting summary (this document) will be developed and distributed to the Advisory Group and other interested parties by The Osprey Group following each meeting. The Group adopted the agreements as presented, recognizing the operating agreements may evolve over time.

The Group reviewed and discussed the membership of the Advisory Group for its adequacy. Two additions were recommended. It was noted that Patricia Smith, the Chair of the County Planning and Zoning Commission had expressed interest in being part of the Group. A second recommendation was to add an individual with a retailing interest along the existing I-

70 corridor. There was some discussion about university and residential interests north of the interstate. The Group discussed these concerns and agreed to the existing composition with the addition of Ms. Smith and another retailing interest.

Most Important Issues

The issues and criteria that emerged as priorities, based upon The Osprey Group interviews, were presented to the Group. A variety of issues, 31 in total, were presented to interviewees with a request that they highlight the five to seven they thought were the most important. Based upon the responses, the most important issues (those cited ten or more times) were:

- Improvement plan recognizes future capacity needs (17 mentions)
- Growth/sprawl to the north (14 mentions)
- Local east-west traffic accommodated (14 mentions)
- Growth in Columbia continues (12 mentions)
- Trucks diverted to bypass (11 mentions)
- Displacement of residents (10 mentions)

In addition to specific issues cited as most important, Osprey made the following observations:

- Based upon what we heard, there is a strong desire to make a decision about the highway alignment that meets long-term community needs.
- There is concern about the bifurcation of the community by the interstate and the amount of growth that is expected to occur to the north.
- Some see growth to the north as something that should be anticipated. Others see this growth as negative and something that should not be encouraged.
- While there are some who believe growth has more negative than positive aspects, most of the interviewees thought continued thoughtful growth in Columbia was a valuable characteristic for the community.
- The amount of truck traffic traveling through Columbia was viewed as a problem. This issue, along with the traffic and safety issues related to the intersection of U.S. Highway 63 and I-70, were most often cited as significant negatives of the present corridor.
- Access is considered an issue that ties directly to the impact to the businesses located along the interstate. Some downplayed the near-term access issue as something that would need to be tolerated during the construction phase as a necessary condition to solve a bigger problem. Some were also concerned about access as it might impact the downtown area over the longer term.

Suggested Criteria for Evaluating Alternatives

Interviewees were also asked about the criteria they would suggest be used in making a choice among the three broad corridors under consideration. The most frequently mentioned criteria were:

- Meeting the traffic needs
- Taking a longer-term perspective
- Cost

- Safety
- Short-term construction impacts
- Economic impacts on the community

Other criteria mentioned less frequently included dislocations of residents or businesses, truck traffic, alternative modes of transportation, the ability to bring traffic into Columbia, and environmental impacts.

The Group was asked about its assessment of the critical criteria that should be used in evaluating alternatives. Comments and questions from the Group included:

Understand the costs of widening I-70. Any widening of the existing interstate corridor will have a physical, economic and fiscal impact. How do we weigh these costs in comparison with a short bypass.

Understand the impact on traffic. What are the implications of the various alternatives on distance, traffic volumes and travel time? How will this change over time? Similarly, what will the future distribution be between local versus non-local traffic demand? And, do these answers suggest alternative planning or design options? Can the City address the east-west traffic demand?

Status of existing I-70 with a bypass. There is concern that if a bypass were to be constructed, the existing interstate could be susceptible to deterioration over time. What are the plans for the existing corridor should a bypass route be chosen? How can the existing interstate remain as an attractive asset for the community?

Economic and fiscal impact. There is a desire to have a better understanding of the impact (e.g., retail sales, employment, property and sales tax) that a new bypass would have on existing businesses along the current interstate. It was reported that 99 percent of Columbia's hotel inventory, probably 50 percent of the restaurant inventory, and probably at least 35 percent of our major retail is on I-70. Can the businesses along the existing I-70 remain competitive if a new bypass is constructed? If not, what are the dimensions and degrees of the problem economically and fiscally? What are the likely economic gains to be had with a bypass? Which corridor leads to be best community option from an economic point of view?

Traffic speed and dedicated highways. The ultimate choice might be a function of the extent to which speed can be reduced on the existing corridor or an alternative route could be designated for truck traffic only. Can we make a longer bypass more attractive if those driving it can drive faster? Is it legally possible to require that truck traffic be diverted to the bypass?

Analogous situations. What can be learned from other communities that have faced a similar choice in terms of their decisions and the resultant economic and fiscal impacts?

The impact during construction. It would be helpful to have a better understanding of the impact of a construction phase, especially if the decision were to be made to widen the existing interstate. What will be the impact on traffic during construction? How long will the construction phase last? What can be done to mitigate impacts? "We can all sit here and say, gosh, it's gonna be awful, but there are several degrees of awful."

Planning and zoning. In addition to minimizing the number of interchanges on a new bypass, the City and County have tools that can minimize the land use changes and economic development that might occur with a new interstate. To what extent might these tools be used to guide future development?

There were also expressions of concern about environmental impacts, noise impacts, and safety as choices are made and design alternatives considered.

Background: The First Tier Study

Mr. Jerry Mugg from HNTB presented information about the First Tier studies that preceded the present effort.

Recognizing problems with I-70, MoDOT initiated a study to identify the needs for improvement. They concluded that a comprehensive approach was needed to address a range of needs on the 200-mile interstate between Kansas City and St. Louis. The options explored ranged from having a brand new Interstate 70 to addressing multi-modal needs, from having toll roads to addressing freight options. The agency also came to the conclusion that there needed to be a more comprehensive dialogue with other agencies and the public as part of the decision-making process.

MoDOT determined that a thorough study, in the form of an environmental impact statement or EIS, was needed and that it should be done in phases. The sponsors of this effort are MoDOT and the Federal Highway Administration. The first phase, called Tier One, was to examine I-70 from a big picture or statewide perspective, define an improvement strategy, and set forth an action plan. It evaluated various improvement alternatives, assessed the impacts of these alternatives from an environmental, engineering and traffic viewpoint, and culminated in an EIS document that was completed with a Record of Decision (ROD) in December 2001.

The fundamental conclusion was that the best approach was to reinvest in the existing interstate. The first study identified two areas that, due to tight constraints and a mix of local and interstate traffic, warrant additional consideration of other improvement options. Columbia is one of these areas (the other is in the area near St. Louis).

The First Tier did address some local issues, but the focus was again on a statewide perspective. It also suggested that seven areas across the 200-mile system be evaluated. These areas were called “sections of independent utility” or SIU’s. The Columbia area is known as SIU 4. The Second Tier study, now beginning, is to add depth to the analysis of each of the SIU’s. The First Tier also included a prioritization plan. Columbia is considered one of the higher priorities within the overall corridor.

With the Second Tier studies complete, projected to be 2005, MoDOT, with funding, will be able to move forward into the design and construction of the improvements.

Some Columbia-specific findings:

- Projections for 2030 show that traffic through the Columbia area will be around 90,000 to 100,000 vehicles per day. This volume suggests that about eight to 10 lanes of traffic will be necessary.
- There is quite a mixture of local and through traffic. However, even without local traffic, there is enough projected traffic along I-70 to show that improvements in the Columbia area are necessary.
- The First Tier identified three broad (mile-wide) corridors for consideration – the existing alignment, plus near north and far north corridors. These corridors were intended to be very conceptual in nature. This second phase study will add detail and specificity to these alternatives.
- Even recognizing there would be impacts associated with each of the alternative corridors, none of the proposed corridors were found to have fatal flaws. Relocation to the south of Columbia was not considered feasible due to land use issues, parklands, and greater density of development.
- Should a bypass alternative be viewed as the preferred choice ultimately, improvements to the existing interstate will still be necessary.
- A statewide travel demand forecasting model was used to assess how much traffic would use either of the bypass options. Traffic projections suggested that the far north alternative would divert or attract about 6,000 to 8,000 vehicles per day. The near north would attract about half the projected 90,000 to 100,000 vehicles. Each of the three corridor options will be evaluated again, using local information and a local travel demand forecasting model.

Background: The Second Tier Study

Mr. Tim Nittler, from the firm of CH2M Hill, provided additional information about what the Second Tier will include.

Referring to the schedule in the Group's packet, it was noted that there are seven major tasks to be completed. The Second Tier, as noted above, is intended to dive deep into the details, evaluating existing conditions, setting forth and screening preliminary and final alternatives. The tasks and projected completion date are:

Task	Projected Completion
Corridor Screening	December 2002
Develop Preliminary Alternatives	April 2003
Evaluate Alternatives and Screen to Reasonable Ones	November 2003
Develop Draft Environmental Impact Statement (DEIS)	June 2004
Public Review of DEIS and Public Hearing	July 2004
Develop Final Environmental Impact Statement (FEIS)	May 2005
Record of Decision (ROD)	August 2005

The initial step is to revisit the three proposed corridors. The hope would be that the number could be reduced before the more detailed study of alternatives begins. Key variables in making this decision will be incorporating more detailed Columbia land use plans as well as the new traffic forecasts for 2030. This information will be brought before the Group as it is developed.

Once the corridors are defined, the process of actually drawing lines on maps begins. The goal will be to be much more definitive about the location of proposed alternatives while avoiding and minimizing impacts. Once defined, each alternative will be evaluated for its environmental, social and economic impacts.

A considerable amount of time will be needed to develop and review the draft EIS and the final EIS. However, the plan is that the Advisory Group will be involved in much of this analysis and assessment prior to the drafting of the EIS. The intention is to have many of the more sensitive issues aired openly before and while drafting of the EIS is occurring so that the preferred alternative does reflect thoughtful community input. The Group can play a particularly valuable role in the review of the corridor options and the screening of alignment choices.

Discussion

Group discussion followed the presentations by Mr. Muggs and Mr. Nittler.

Key variables and cost estimates. Initially there was some discussion about which is the driving variable in making a decision about the alternatives. Are we principally concerned about maximizing the amount we can construct within a fixed budget? Are we primarily concerned with the cheapest alternative that diverts truck traffic? Are we concerned about drawing people into town? The view was that, without answering some of these preliminary questions, it is difficult to determine which answer or alternative is preferred.

Mr. Nittler responded that there is no fixed budget. Rather, a budget will be developed for each alternative. That will be one variable in making a choice about the preferred alternative. Cost plays a role, but it might not be the ultimate driver. The various benefits associated with each alternative will also have to be compared with the cost.

Mr. Mugg noted that the First Tier did give some general guidance as to cost. A cursory level of study suggests that improving the existing I-70 would cost around \$350 million in current dollars. Early estimates are that either of the bypass alternatives would cost about \$50 million less.

Speed and diversion of truck traffic. Mr. Nittler responded to the question of reducing speed on the interstate through Columbia. He thought it would be difficult to lower the speed limit without major adjustments to the roadway. However, he thought that with direction from MoDOT and the Advisory Group, it would be a variable CH2M Hill could evaluate.

Mr. Mugg noted that the traffic projections assumed 65 miles per hour along the existing interstate and 70 miles per hour for the relocated highway alternatives. He also said there

would be other things, such as the interstate configurations at both ends and signage, which could be explored to encourage through traffic to use one of the northern corridors.

Noise. A question was raised about how noise might be impacted by moving truck traffic from one alternative to another. Mr. Nittler responded that the question of the truck traffic should be answered in the coming months as the new traffic data are developed. The model will indicate the split of traffic by alternative. In addition, additional noise studies will take place in the Second Tier. Mr. Mugg noted that noise studies are very site or line specific. Early screening will occur without the benefit of these studies. Once specific alignment alternatives are identified, however, there will be more detailed noise studies.

Construction options. A question was raised about the possibility of doing an over/under interstate. In response, Mr. Mugg said they considered a number of alternatives. For example, one was to separate the through traffic from local and turning traffic. The concept would be to have basically a viaduct or a double deck through town. The goal would be to minimize the impact by, rather than spreading the highway footprint, going vertical. The top lanes would be reserved for express or through traffic. Even though it is a short distance, it is cost prohibitive, with the cost per mile being roughly double a typical freeway construction. As a result, it was one of the options not recommended to be studied in greater detail during this second phase.

A bypass with no exits. Another question was asked about having a bypass that was exclusively for through traffic (i.e., it would have no exits). The response was that the bypass alternatives did incorporate the idea of minimal exits to encourage through traffic to use the bypass. An option with no exits was not considered viable.

Current estimates of interstate traffic. Mr. Schwartze noted that in the rural area of I-70, the traffic volume is currently about 33,000 to 35,000 vehicles per day. The maximum in Columbia right now is around 60,000 vehicles per day. Thus, the difference of 25,000 to 27,000 vehicles per day can be assumed to be attributable to local traffic. He also noted that truck traffic constitutes 28 to 30 percent of the traffic on the rural portions of the highway.

Truck traffic. There was interest in knowing if trucks cause a disproportionate impact on the system and how the percentage of truck traffic might change by the year 2030. Mr. Muggs noted that trucks in the overall corridor are nearly 30 percent. The percentage is greater in rural areas, so the estimate is 10,000 to 12,000 trucks per day on the interstate. He also noted that truck traffic nationally is growing at a faster rate than auto traffic, two-and-a-half to three percent per year for trucks versus around two percent for automobiles. This information is available in the First Tier report.

Size of the median. There was some discussion about the size of the median. Mr. Mugg noted that 80 percent of the corridor is rural. That, combined with the desire to maintain four lanes of traffic during construction, led to the concept of creating an extra wide median. Since an extra wide median was being created, the thought was to preserve the median for future transportation options, such as passenger rail. There is no rail initiative, but it seems prudent to modestly increase the cost and preserve a future option.

Current design capacity. A question was raised about the existing I-70 and its capacity. The response was that a four-lane highway has essentially the same capacity today as it did in the 1950's, or roughly 30,000 to 35,000 vehicles per day depending on a number of variables.

SUMMARY, NEXT STEPS, AND CLOSING COMMENTS

The Group addressed certain logistical issues. It was decided that the preferred time to meet was in the late afternoon, between 4:00 and 7:00.

The Group decided to have its next meeting on November 7th and explore holding it at the new library. (This location has been reserved). The Group was asked to hold the 4:00 to 7:00 time slot in their calendars until a more specific agenda is developed. Preliminarily, the agenda will include more detail about each of the corridor options and a presentation about traffic modeling.

The Group decided to have its 3rd meeting on December 12th.

IMPROVE INTERSTATE 70 ADVISORY GROUP

1st Meeting
5:30 to 8:00 PM
September 19, 2002

Holiday Inn Executive Center
(in the Parliament II room)
Columbia, Missouri

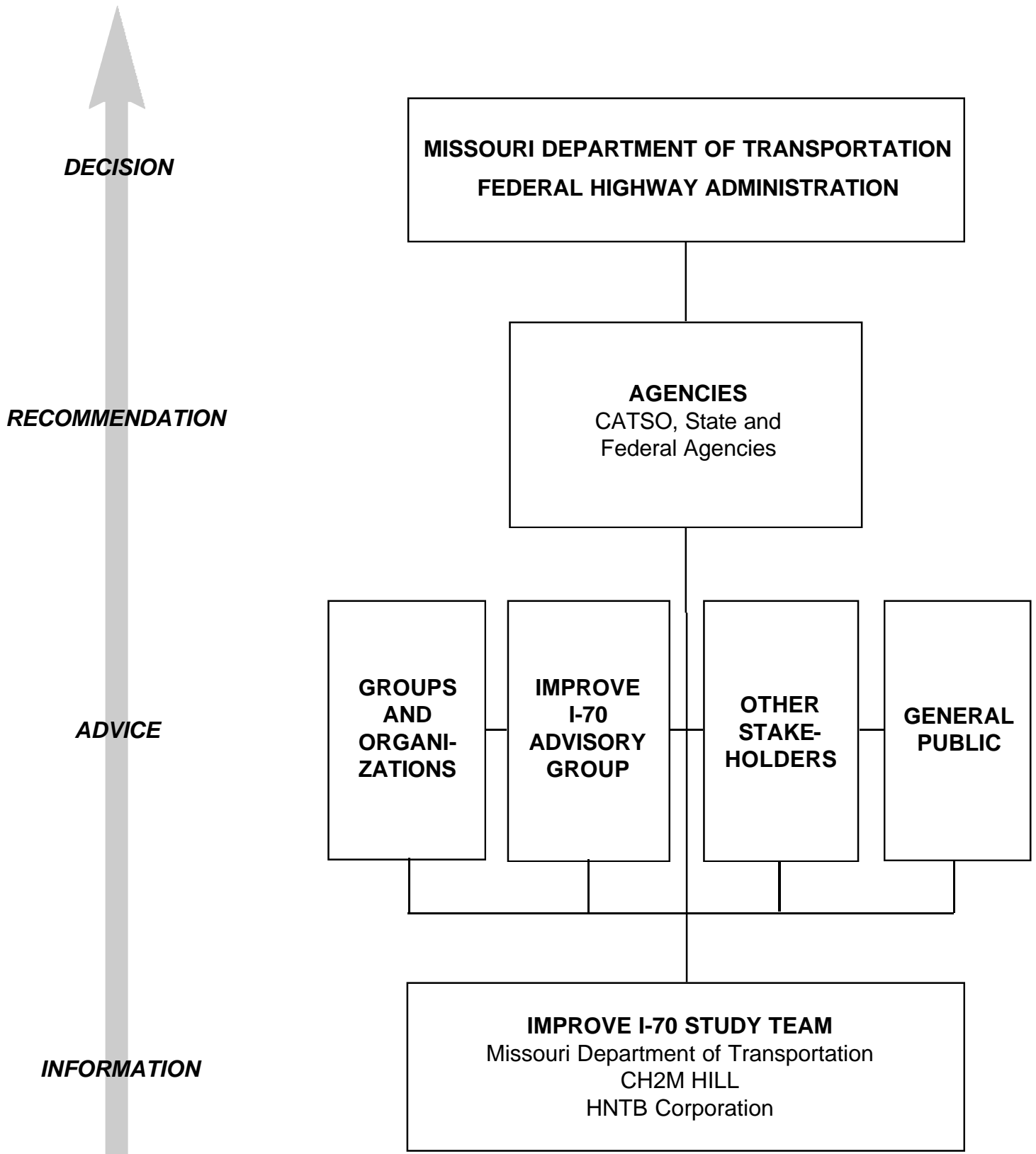
Meeting Goals: Discuss and accept Operating Agreements for the Advisory Group; create understanding of the relationship between the overall planning process and the Group's input; review key issues and criteria for making choices among I-70 corridor alternatives.

- 5:30 Convene the Meeting
- Welcome and Introductory Comments
Roger Schwartze, District Engineer, Missouri Department of Transportation
 - Agenda Review
 - Self-introductions by Members of the Advisory Group
 - Proposed Operating Agreements
- 6:15 Highlights of the Report by The Osprey Group and Discussion
- 7:00 Review of the Overall Planning Process and the Timing of Key Decisions in Columbia
Jerry Mugg, HNTB and Dan Dupies or Tim Nittler, CH2M Hill
- 7:50 Set Date for Next Meeting and Critique of this Meeting
- 8:00 Adjourn



Decision-Making Flow Chart

This chart illustrates the general flow of decisions that will be made during the I-70 Second Tier Environmental Studies in Columbia.



Improve I-70 Advisory Group

Draft Operating Agreements September 2002

Purpose

The Improve I-70 Advisory Group will focus on providing meaningful input to MoDOT as it plans for the improvement of I-70 in the Columbia area. The Group is one of several mechanisms that MoDOT expects to use to gather public opinion.

Roles

The Advisory Group is composed of people interested in planning the future of I-70 in the Columbia area. Members include people who reside or work in the area as well as individuals who work for affected governments, organizations and agencies. The expectation is that all members will:

- attend all meetings and prepare appropriately (because of the importance of continuity of participation and the relationships which will develop among members, no provision is made for substitutes in the event of an unavoidable absence),
- clearly articulate and reflect the interests they bring to the table,
- listen to other points of view and try to understand the interests of others,
- openly discuss issues with people who hold diverse views,
- actively generate and evaluate options, and
- keep their agency or organization informed of the Group's work.

The Osprey Group will provide facilitation services to the Advisory Group. The facilitators will:

- design and implement discussion procedures,
- design meeting agendas,
- conduct meetings,
- make strategic suggestions as appropriate,
- develop and maintain an email list for distribution of information,
- prepare a meeting summary for distribution to members and other interested individuals after each meeting,
- remain impartial toward the substance of the issues under discussion,
- remain responsible to the full Group and not to individual members or interest groups,
- enforce discussion guidelines accepted by the Group, and
- work with members to resolve process questions, and construct substantive options for the Group's consideration as appropriate.

Representatives of MoDOT, and its engineering consultants, will attend all Advisory Group meetings in order to listen to the discussion and provide timely information to the Group.

Meeting and Discussion Guidelines

The Advisory Group seeks to have productive and useful meetings. To this end, our collective expectations are:

- Meetings will begin promptly and adjourn by the time specified on the agenda.
- Members will arrive on time and stay through the entire meeting.
- The facilitators will call on people to speak during the meetings.
- Only one person will speak at a time.
- Members will focus on substantive and procedural issues rather than personalities.
- Members will avoid side conversations that might be disruptive.
- Members should ensure cell phones are turned off at meetings.
- Members will be brief in their comments and avoid repeating themselves or others.

The facilitators will distribute material, including an agenda, at least five working days in advance of meetings. Members are expected to read the material beforehand and come prepared to contribute to the discussions.

Members of the public are both invited and encouraged to attend all Advisory Group meetings. However, these sessions are intended to focus on the discussions of the Advisory Group and it is not anticipated that there will be opportunities for the broader public to participate during Advisory Group meetings. Other opportunities, however, will be available for the general public to offer their input to MoDOT at other times.

Decision Making

By law, MoDOT has the responsibility of making final decisions about the improvement of I-70 in Missouri. For this reason, MoDOT is not a member of the Group, although its representatives will attend and participate in all meetings. As its name implies, the Group is advisory to MoDOT on matters of general interest to the community as they relate to the planning, design and construction of I-70 improvements.

While the ideal may be for members to reach consensus on a variety of variables, such as the importance of criteria for decision-making, the pros and cons of identified corridors, or even the preferred alignment, which will be under discussion, it is not required. MoDOT will utilize the Advisory Group's input in its entirety in its own decision-making process. This will happen primarily through:

- MoDOT's listening to the Group's discussions and answering timely questions,
- MoDOT's review of the verbatim transcripts of all meetings. A court reporter will be provided to produce transcripts, and,
- The dissemination of a Meeting Summary which will be drafted and distributed by The Osprey Group after each meeting.

These "Operating Agreements" will evolve as needed to continue to meet the needs of the Advisory Group.



Issues and Criteria

Selected Highlights from the Columbia Survey Results



Important Issues

- ◆ Improvement plan recognizes future capacity needs (17 mentions)
- ◆ Growth/sprawl to the north (14 mentions)
- ◆ Local east-west traffic accommodated (14 mentions)
- ◆ Growth in Columbia continues (12 mentions)
- ◆ Trucks diverted to bypass (11 mentions)
- ◆ Displacement of residents (10 mentions)



Suggested Criteria

- ◆ meeting the traffic needs
- ◆ taking a longer-term perspective
- ◆ cost
- ◆ safety
- ◆ short-term construction impacts
- ◆ economic impacts on the community



Selected Verbatim Comments

- ◆ A lot more education is needed about the big picture and the magnitude of the challenge.
- ◆ We need to set parameters to ensure usefulness and have the latest updates. Need succinct synopsis – not lots of paper on issues.
- ◆ It really is a regional, not just a Columbia issue, because I-70 is vital to everyone.
- ◆ We'll need a loop in the future because the projected growth numbers are so great.
- ◆ Don't confuse quality of I-70 with traffic – need to improve quality. An 80,000 person town doesn't need a loop.
- ◆ I-70 is like a river dividing the City.
- ◆ Currently I-70 is over capacity. The locals hop on and off. It's not safe.
- ◆ Two interstates two miles apart is unimaginable.
- ◆ Phase I was pro-North and biased.
- ◆ Trying to do the existing alignment is nearly impossible. It would still just be an expressway to get from one side of Columbia to the other.
- ◆ Far North was close to elimination. Didn't seem to make sense when people did the numbers. Something like 16 miles farther.
- ◆ Any one option will be controversial. Will face a good deal of NIMBY concerns.
- ◆ The sooner the decision is made, the better.

Meeting Summary

IMPROVE I-70 ADVISORY GROUP

2nd Meeting

Daniel Boone Regional Library
Friends Room
100 West Broadway
Columbia, Missouri

November 7, 2002

This is a summary of the second meeting of the Improve I-70 Advisory Group. It summarizes key informational and action items from the meeting.

GENERAL

Members Present

Members of the Advisory Group attending the initial meeting: Bernie Andrews, Jeff Barrow, Bob Bechtold, Elaine Blodgett, Susan Clark, Chip Cooper, Roy Dudark, Dave Griggs, Pete Herring, Chris Janku, Kory Kaufman, David Mink, Larry Moore, Tom Moran, Mike Morgan, Bud Moulder, Justin Perry, Pat Smith, Lorah Steiner, Garry Taylor, and Bob Walters.

Dennis Donald and John Huyler of The Osprey Group facilitated the meeting.

Materials Available at the Meeting

Materials available for discussion at the meeting, in addition to the agenda, included:

- Description of purpose and need
- Conceptual corridor overview
- Land use and demographic data
- Traffic forecasting background
- Traffic modeling scenarios
- Questions and answers from the 1st meeting

Meeting Goals

The overarching purpose for the meeting was to gain understanding about how the engineers and MoDOT will evaluate and screen the three corridor options for I-70. More specifically, the meeting goals include: 1) understand decision criteria for corridor screening; 2) review background information on each corridor option; 3) review and discuss land use assumptions, 4) review and discuss traffic modeling and scenarios; 5) respond to questions raised at the first meeting.

SUMMARY OF ISSUES AND ADVISORY GROUP INPUT

Purpose and Need

Mr. Buddy Desai from CH2M Hill opened the presentations by describing “purpose and need” and the criteria that will be applied in analyzing the corridor alternatives.

At the outset, Mr. Desai noted that there are a number of critically-important issues. Many of these were defined during the Tier One study, but they apply to Columbia as well. These include roadway capacity, traffic safety, roadway design features and land use compatibility. Several items were underscored in Mr. Desai’s handout including the projected increase in traffic volume and congestion at interchanges. He also noted that these issues will receive additional emphasis during the Tier Two study now underway.

A question was raised about what constitutes an unacceptable level of service. Mr. Desai responded that the engineers assess the level of service and rate various levels (rated A through F, with F being the worst). If the highway operates below level of service D in 2030, it is judged to be unacceptable.

There are three one-mile wide corridors under consideration. Moving forward, the goal is to examine more specific alternatives within one or more corridors. The initial step, however, is to screen the corridors to determine whether any alternative within the corridor would meet the purpose and need. Mr. Desai also underscored that regardless of whether a near-north or far-north alternative is pursued, improvements to the existing I-70 will be made.

The initial corridor screening is conducted at a high level and emphasizes the transportation elements of the proposed project. Mr. Desai identified five corridor screening criteria and the rationale for their inclusion. He mentioned that as the analysis moves forward, specific thresholds, such as average speed or time, will be determined and applied for each criterion.

A question was raised about whether the criteria reflected the desire to see traffic diverted to a bypass in order to achieve “traffic calming” on the existing I-70. Mr. Desai responded that this would be something they could consider. He also stressed that the alternatives should not really be considered a “bypass” since the existing I-70 is expected to continue to operate as an interstate. There was some follow-up discussion about the extent of the commitment to continue to operate the existing I-70 as an interstate facility. For example, the issue of variable speed limits was discussed. There was concern that unless the traffic was slowed by some mechanism on the existing corridor, there would be little incentive to drive a longer route.

The phasing of construction was also discussed. Mr. Desai indicated that this would be an issue that will need to be examined as the study progresses. It will also be a function of the availability and timing of resources.

Corridor Overview

Mr. Jerry Mugg from HNTB provided a broad overview of the three corridors under consideration. This material was summarized as one of the handouts. In addition, a CD that includes the documentation, the final EIS, and all the associated information from the First Tier EIS was passed out.

Mr. Mugg emphasized the difference between the two study efforts. The initial study was from a statewide perspective. In many ways, it provided the starting point for the more detailed analysis that is now beginning in the Columbia area.

The three alternatives were discussed. One alternative is to improve the existing interstate in its present location. This would entail widening the existing lanes through Columbia from four to six lanes. There is also the concept of frontage roads that complements this improvement; namely, there would be one-way frontage roads, such that there would be six main line lanes, and frontage roads two or three lanes in each direction, for a total of twelve lanes. There are a number of options, but basically ten to twelve lanes are needed through Columbia.

There are several related goals that MoDOT is attempting to address. For instance, it is a goal to separate local versus through traffic. This can be achieved in a number of different ways. One approach is to rely upon the frontage road concept. It is also a goal to improve the design standard of the roadway; for example, improvements would include much wider shoulders. To the extent possible, it is a goal to have the ability to expand the roadway to meet future needs. Several of the interchanges in Columbia will need to be totally reconstructed.

Mr. Mugg then described the concept of additional corridors. This approach would provide additional lanes off the existing I-70. The connections to the additional corridor would be such that through traffic would be encouraged to use the new corridor. To use the existing corridor, the driver would have to make a decision to leave the corridor through some kind of ramp.

The far-north corridor is about 20.9 miles long while the near-north corridor is about 17.6 miles long. The right-of-way width of the four lanes in the corridor would be about 500 feet or so, including an extra-wide median of approximately 120 feet. These corridors would have a 70-mile-per-hour design speed. If the existing I-70 is operating at 55 miles per hour and the new alignment is achieving an average speed of 70 miles per hour, then there is a speed differential that could make up for differences in length.

Mr. Mugg highlighted a table in his handout that provided a rough comparison of the three conceptual alternatives. He stressed that these data will be augmented by more refined analysis, including the traffic projections, which are described below. He also mentioned that the opportunity to avoid or minimize impacts is notably greater for either of the two alternative corridors than it would be on the existing I-70, which is essentially fixed. Some of his observations include:

- The near-north corridor is about 0.9 miles longer than existing, and the far north is about 4.2 miles longer than the existing (based upon centerline calculations).

- The capital costs, which include right-of-way acquisition costs, in current dollars for the far-north and near north are very similar.
- The cost to widen the existing I-70 is about \$50 million more than either of the two alternative corridors.

The number of projected displacements for each alternative was also cited. It was also noted that the figures were developed based upon recent aerial photography (approximately a year and a half old) and might not be totally current and certainly do not reflect future land use changes or development.

Interchanges. A question was raised about the location of interchanges on the northern alternatives. While there have been some suggestions made about likely locations, Mr. Mugg indicated that the precise locations will need to be determined during this more detailed study phase.

Enhancements. There was also a question about whether the cost figures included money for visual upgrades and enhancements to the highway. Mr. Mugg indicated that, yes, it is anticipated that some urban design features would be included, but these are not specified in any detail at present.

Decommissioning of the existing I-70. A question was also raised about why the current corridor needs to be maintained as an interstate. Mr. Mugg and Ms. Harvey from MoDOT both addressed the question. There is the possibility of decommissioning an interstate highway. It was noted that this would, on the one hand, need to be negotiated with the Federal Highway Administration since federal dollars have been invested in the system. On the other hand, there is the need to address longer-term maintenance responsibility for the road. There may be little interest on the part of MoDOT to assume ongoing responsibility for a road that has been reduced in terms of its classification, in part because of federal funding implications. If not MoDOT, then would there be a local government recipient for the highway? This raises the question about Columbia's willingness or ability to assume responsibility for the road as another arterial within the City.

Land Use Planning and Demographics

The next portion of the meeting emphasized how local information would be translated into the traffic modeling efforts. The basis for much of this is assumptions about population growth, demographic characteristics, and land use projections.

Roy Dudark, Planning Director from the City of Columbia, provided a presentation about socioeconomic trends, land use, and local transportation issues. Mr. Dudark relied on both handout material as well as Columbia metropolitan planning area maps.

Highlights included:

- Growth is expected to be about 2,200 persons per year, or about 980 residences annually through the year 2030.

- In the last six years, most growth within the city limits of Columbia has occurred, in order, to the west, east, and north.
- Future land use projections were based upon population growth, projected commercial and retail growth, existing land uses, and land use constraints and opportunities.
- The land use projections are distributed through various traffic zones, based upon developable land area and the availability of utilities and services. This information forms the basis for the consultants, Wilbur Smith and CH2M Hill, to develop its traffic models and projections.

Traffic Modeling and Scenarios

Mr. Steve Wells from Wilbur Smith described how this local information will be used to develop the traffic model. The model will reflect local conditions and allow various assumptions to be incorporated to determine which of the three corridors best fulfills the purpose and need for the improvement of I-70.

Mr. Wells indicated that his firm has taken the statewide traffic model and, working with the City of Columbia, is developing a much more refined and accurate model. This model should provide more realistic traffic projections, have the capacity to generate alternative scenarios, and fundamentally assist in evaluating the corridor alternatives under consideration.

The modeling process was described. It consists of a four-step process. The initial step is to develop the model itself, and the traffic model is primarily composed of the roadway system in the community. The model is calibrated to existing conditions including an assessment of trip generation and trip attractors and how these trips are allocated within the local roadway network. Once this has taken place, the model is then used to project future traffic by incorporating projections of population, employment and land use along with information about longer distance trips and changes in the existing roadway network. With this information in the model, the three alternative corridors can be evaluated.

Modeling is a tool to evaluate whether the alternatives can meet the identified needs of the project (namely, accommodating 2030 traffic on I-70 in the Columbia area). Mr. Wells cited figures that show average daily traffic volume at the western edge of the community being about 35,000 to 40,000 vehicles per day. As you move toward the center of the community, the figures rise closer to 60,000 vehicles per day. By the year 2030, traffic on I-70 is expected to roughly double. Mr. Wells noted that even today, there are parts of the interstate that have traffic and congestion that is judged to be unacceptable.

The model will be able to perform sensitivity analysis. This will include changing assumptions or variables in the model and seeing the impact on traffic volume. Some of these variables will be geometric considerations, such as the number and location of interchanges or lanes. Other variables, such as variations in speed, can also be incorporated into the model.

Questions were raised about the modeling and the assumptions that would drive the results.

- One question concerned the assumption that under the scenarios envisioned the current I-70 is projected to be widened to six lanes. The view was that there was some merit in

running the model under the assumption that the existing interstate, while improved, might not have additional lanes or greater capacity. Mr. Wells noted that all alternatives will be evaluated versus the “no build” alternative, which this would be.

- There was also concern about the extent to which the interstate was accommodating local versus through traffic in the year 2030. Mr. Desai commented that this would be the type of information the model would generate once it is calibrated to local conditions. Mr. Mugg also noted that the first tier study showed that, even if all local traffic was removed from I-70, there would still be a need to improve the interstate capacity up to six lanes.
- There was also discussion about other variables that would make one of the northern alternatives more attractive to motorists. As one individual noted, it should be “built for speed.”
- There was discussion about whether the existing interstate could be decommissioned and primarily be available to serve local traffic needs. A few in the Group thought this would be an interesting scenario to examine. The response to this was that this would be more of a policy question than an engineering one and that the Group will receive additional information about this at the December meeting. At the same time, the traffic model could be used to assess this type of alternative.
- There was a concern raised about how the model incorporates truck traffic versus automobile traffic. Mr. Wells commented that I-70 between St. Louis and Kansas City does carry a high proportion of truck traffic.
- There was concern about environmental impacts. Mr. Desai reinforced that these and other impacts would receive a good deal more scrutiny as the engineers begin to examine specific alignment options within whatever corridors are selected for future analysis.

SUMMARY AND NEXT STEPS

The next meeting is scheduled for December 12th. The agenda will continue to focus on the screening of the corridors. At this session, Mr. Wells will have the first runs from the traffic modeling effort. Mr. Desai will have developed more definition to what constitutes an acceptable threshold for the criteria he shared with the Group. We will also allow more time for Group discussion of the alternatives. In addition, there will be an overview discussion about the economic impact of these types of transportation changes, with an emphasis on what can be learned from the experience of other communities. At the December meeting, there will also be input from MoDOT on several policy issues, such as the legal and administrative options related to diverting truck traffic and the issues related to decommissioning an existing interstate.

The fourth meeting of the Advisory Group is scheduled for January 30th. At that time, it is projected that more detailed information will be available from the traffic modeling including the sensitivity analysis and that the process of selecting the corridor(s) for more detailed analysis will be close to complete.

Once the corridors are reduced from three to two or one, the Group may not meet again for a few months. The engineering effort will move toward defining and evaluating specific alignments within the selected corridors. This task will take some time to complete.

Upcoming Advisory Group Meetings

December 12th
January 30th

IMPROVE I-70 ADVISORY GROUP

Meeting 2
4:00-6:30 p.m.
November 7, 2002

Daniel Boone Regional Library
100 W. Broadway
Friends Room
Columbia, Missouri

Meeting Goals: 1) Understand decision criteria for corridor screening; 2) review background information on each corridor option; 3) review and discuss land use assumptions; 4) review and discuss traffic modeling and scenarios; 5) respond to questions raised at the first meeting.

- 4:00 Convene Meeting**
Dennis Donald and John Huyler, The Osprey Group
- 4:05 Decision Criteria for Corridor Screening**
Buddy Desai, CH2M Hill
- 4:25 Overview of the Corridor Options**
Jerry Mugg, HNTB
- 4:50 Community Land Use**
Roy Dudark, City of Columbia
- 5:20 Traffic**
Steve Wells, Wilbur Smith, and Buddy Desai, CH2M Hill
- 6:00 Review Meeting 1 Questions & Answers**
Dennis Donald and John Huyler, The Osprey Group
- 6:20 Closing**
Dennis Donald and John Huyler, The Osprey Group
- 6:30 Adjourn**

Purpose & Need Primer and Screening Criteria

Definition of Purpose & Need:

A "Tier 2 Environmental Impact Study" requires documentation of a "purpose and need" for improving a specific section of I-70 that was investigated in the First Tier EIS. A clear statement of "purpose" provides the project a set of decision-making criteria against which various alternatives can be measured. When a proposed concept does not meet these objectives, it does not move forward for further consideration. Similarly, if there is no demonstrated "need" for improvements, the project will not move forward.

Tier I Purpose & Need

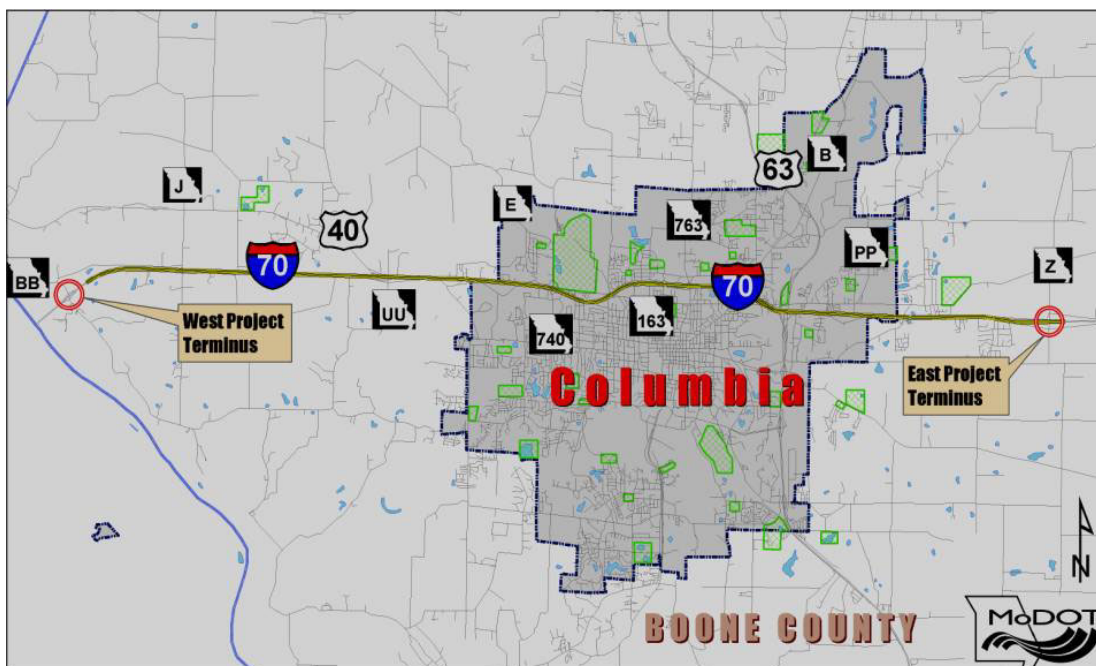
The First Tier EIS identified the following system-wide purpose and need issues:

"...provide a safe, efficient, environmentally sound and cost-effective transportation facility that responds to the needs of the Study Corridor..." such as:

- Roadway Capacity,
- Traffic Safety,
- Roadway Design Features,
- System Preservation,
- Goods Movement, and
- Access to Recreational Facilities.

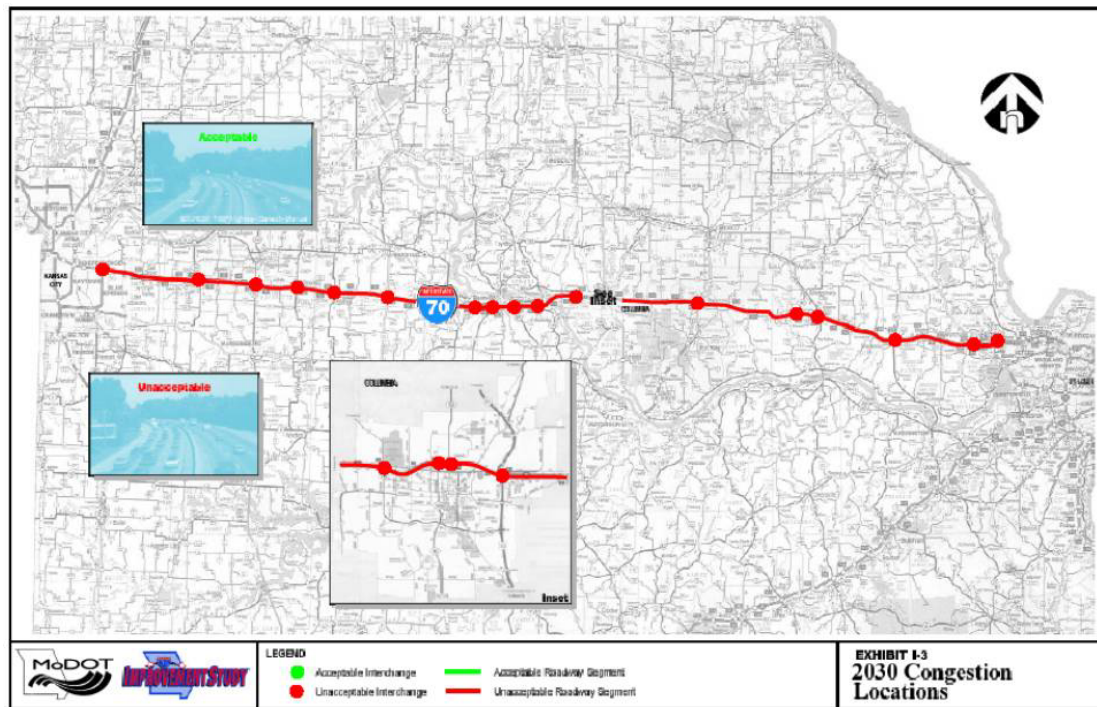
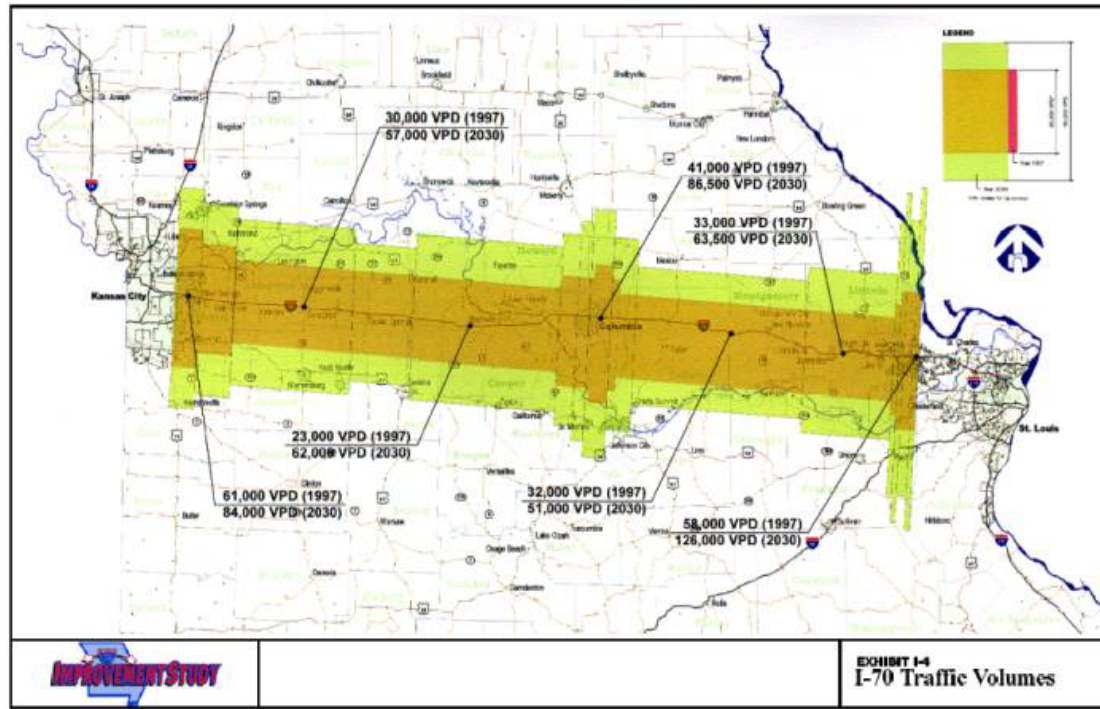
Tier II Purpose & Need

This study will further define the Tier I Purpose & Need and localize it to address the issues specific to the Columbia area. The Columbia area under this study is illustrated below.

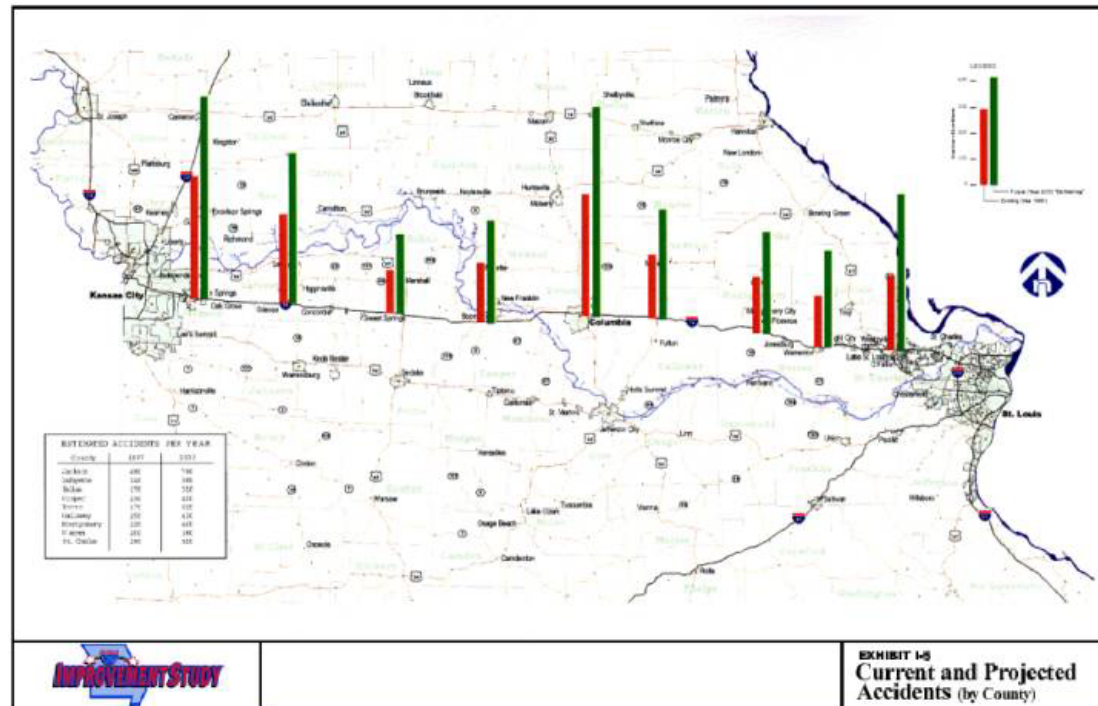


These purpose and need elements will be defined in greater detail during Tier II:

1. **Roadway Capacity** - increase roadway capacity to accommodate future travel demand.



2. Traffic Safety - reduce the number and severity of accidents.



3. Roadway Design Features - upgrade I-70 and its interchanges to current interstate standards.

4. Land Use Compatibility - land use and transportation planning elements in Columbia's Metro 2020 plan.

Corridor Screening Criteria

The initial step in this study is to determine if any or all of the corridors identified in the First Tier EIS satisfy Columbia-specific I-70 transportation purposes and needs. The corridors are defined as (1) Along existing I-70, (2) Near-North corridor, and (3) Far-North corridor. If a corridor does not address the purpose and the needs for improving transportation operations along existing I-70 in the Columbia area, then it will not be carried any further in this study for detailed evaluation. It is possible that both relocation corridor alternatives (Near North and Far North) identified in the First Tier EIS may not be carried further and that only improvements along existing I-70 will be investigated in detail.

Corridor screening is a high-level screening tool that focuses on the transportation elements (traffic, capacity and safety) of a proposed project. If a corridor does not satisfy the screening criteria, then any alternative alignment within that corridor would also not meet the transportation elements of the purpose and need and therefore would be eliminated from consideration.

The Corridor Screening Criteria and the rationale for their use are as follows:

- 1) *Average Travel Time (minutes) for Person Trips Using I-70 Corridor (Determine for all trips, for external to external trips, and for internal to external trips)*

Rationale – The rationale for this measure is that it expresses in meaningful terms the true economic valuation of transportation service. Moreover, use of this measure will enable comparisons of system alternatives that may produce higher speeds, but longer travel distances.

- 2) *Average Speed (miles per hour) for Person Trips Using I-70 Corridor (Determine for all trips, for external to external trips, and for internal to external trips)*

Rationale – Speed and travel time are directly linked. Note that this measure does not allow one to take into account greater distance being driven (such as for a bypass); hence we would not expect this measure to give the same answers for different alternatives.

- 3) *Daily vehicle miles of travel operating at a given level of service along I-70 for all trips; for external to external and external to internal trips*

Rationale – This measure provides a weighted measure of travel operating at a pre-determined acceptable threshold. It represents a weighting of performance reflective of total volume and length of a link or facility.

- 4) *Percent of traffic (weighted by vehicle-miles) along I-70 with a trip length along I-70 shorter than an established threshold*

Rationale – A problem related to operational performance but different from it is the issue of what traffic uses or should use I-70. Alternative system solutions may involve construction of additional highway alignments, local street improvements, interchange reconfigurations, etc. that may change the pattern and character of such traffic.

- 5) *Total annual crashes on I-70; or weighted crash rate (crashes per million-vehicle miles) for I-70*

Rationale – The most direct measure of safety is crashes. This measure enables incorporation of the relationship between crash frequency and congestion or traffic density.

CITY OF COLUMBIA, MISSOURI DEMOGRAPHIC CHANGES

	<u>1990</u>	<u>2000</u>	<u>Change</u>	<u>%</u>
Population	69,101	84,531	15,430	22.3
Male	33,148	40,453	7,305	22.1
Female	35,953	44,078	8,125	22.6
Under 5 years	4,214	4,884	670	15.9
5 to 17	8,556	11,795	3,239	37.9
65 and over	5,982	7,280	1,298	21.7
Median age	25.5	26.8		
White	58,830	70,427	11,597	19.7
Black	6,859	9,931	3,072	44.8
American Indian, Eskimo, Aleut	231	795	564	244.1
Asian or Pacific Islander	2,847	4,162	1,315	46.2
Other race	334	1,102	768	229.9
Hispanic origin	905	1,733	828	91.5
Total households	25,841	33,689	7,848	30.4
Family households	13,542	17,295	3,753	27.7
Married couple families	10,440	12,861	2,421	23.2
Female head of households	2,495	3,464	969	38.8
Nonfamily households	12,299	16,394	4,095	33.3
Householder living alone	8,333	11,165	2,832	40.1
Householder 65 and over	1,776	2,188	412	23.2
Average household size	2.27	2.26		
Housing units	27,551	35,916	8,365	30.4
Occupied units	25,841	33,689	7,848	30.4
Vacant units	1,710	2,227	517	30.2
Owner occupied	11,308	15,927	4,619	40.8
Renter occupied	14,533	17,762	3,229	22.2
Homeowner vacancy rate	2.4	2.5		
Rental vacancy rate	6	6.2		

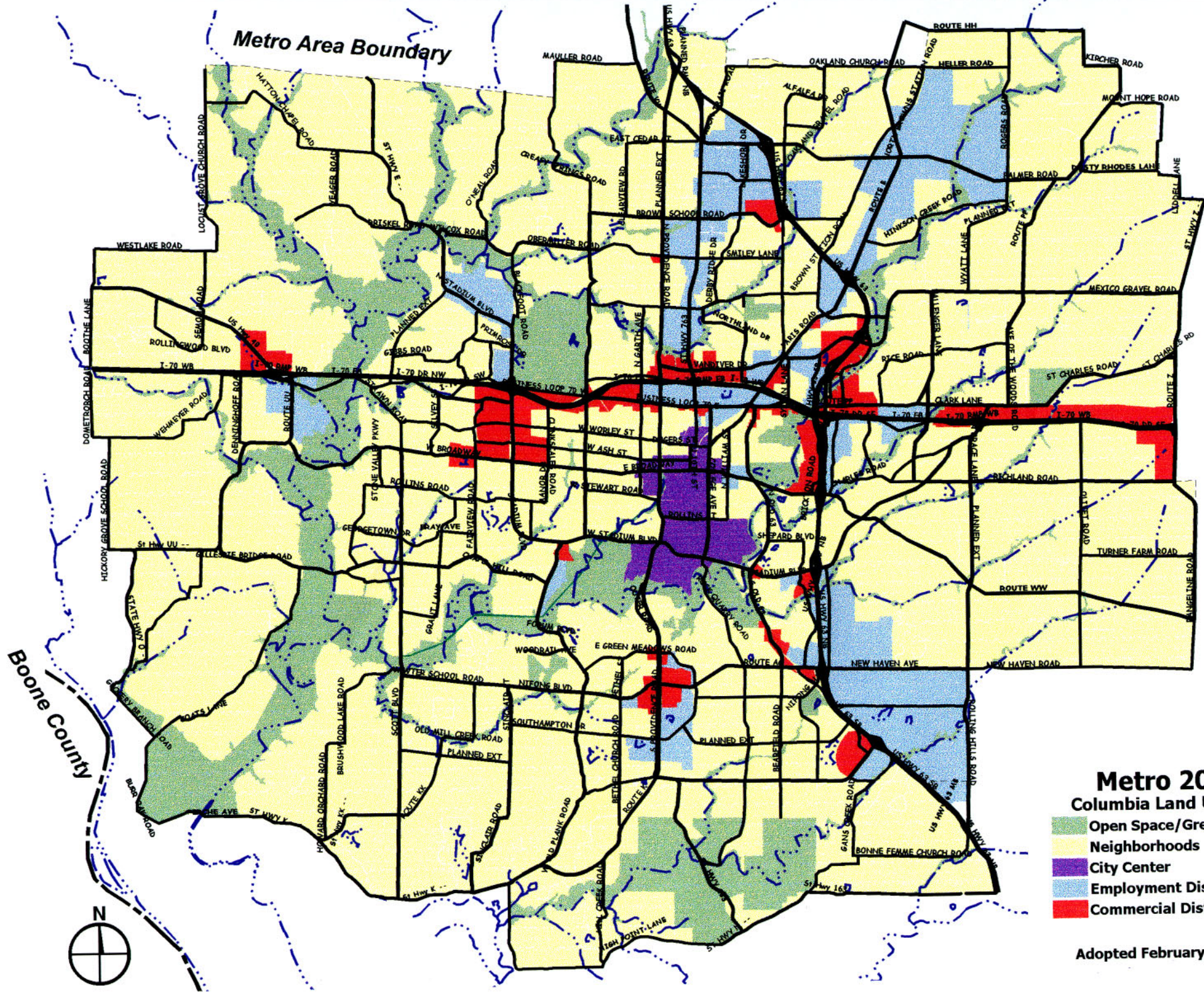
Prepared By: Planning and Development Department City of Columbia, Missouri July, 2001

Source: U.S. Census Bureau

CITY OF COLUMBIA, MISSOURI**POPULATION CHANGE**

<u>Census Tract</u>	<u>1990</u>	<u>2000</u>	<u>Change</u>	<u>%</u>
1	430	820	390	90.7
2	2,501	1,682	-819	-32.7
3	4,019	2,980	-1,039	-25.9
4.01	8,112	6,377	-1,735	-21.4
4.02				
5	2,467	2,446	-21	-0.1
6	5,280	4,852	-428	-8.1
7	3,531	3,706	175	4.9
8	2,962	2,347	-615	-20.8
9	1,786	1,802	16	0.1
10.01	2,975	3,364	389	13.1
10.02	1,556	4,966	3,410	219.2
11.01	3,136	6,651	3,515	112.1
11.03	4,831	6,523	1,692	35.1
11.04	1,669	7,154	5,485	328.6
12	6,207	10,602	4,395	70.9
13	3,043	2,867	-176	-5.8
14	4,213	7,027	2,814	66.8
15.01	4,856	10,223	5,367	110.5
15.02	4,445	5,762	1,317	29.6
16.01	627	4,961	4,334	691.2
18.01	455			

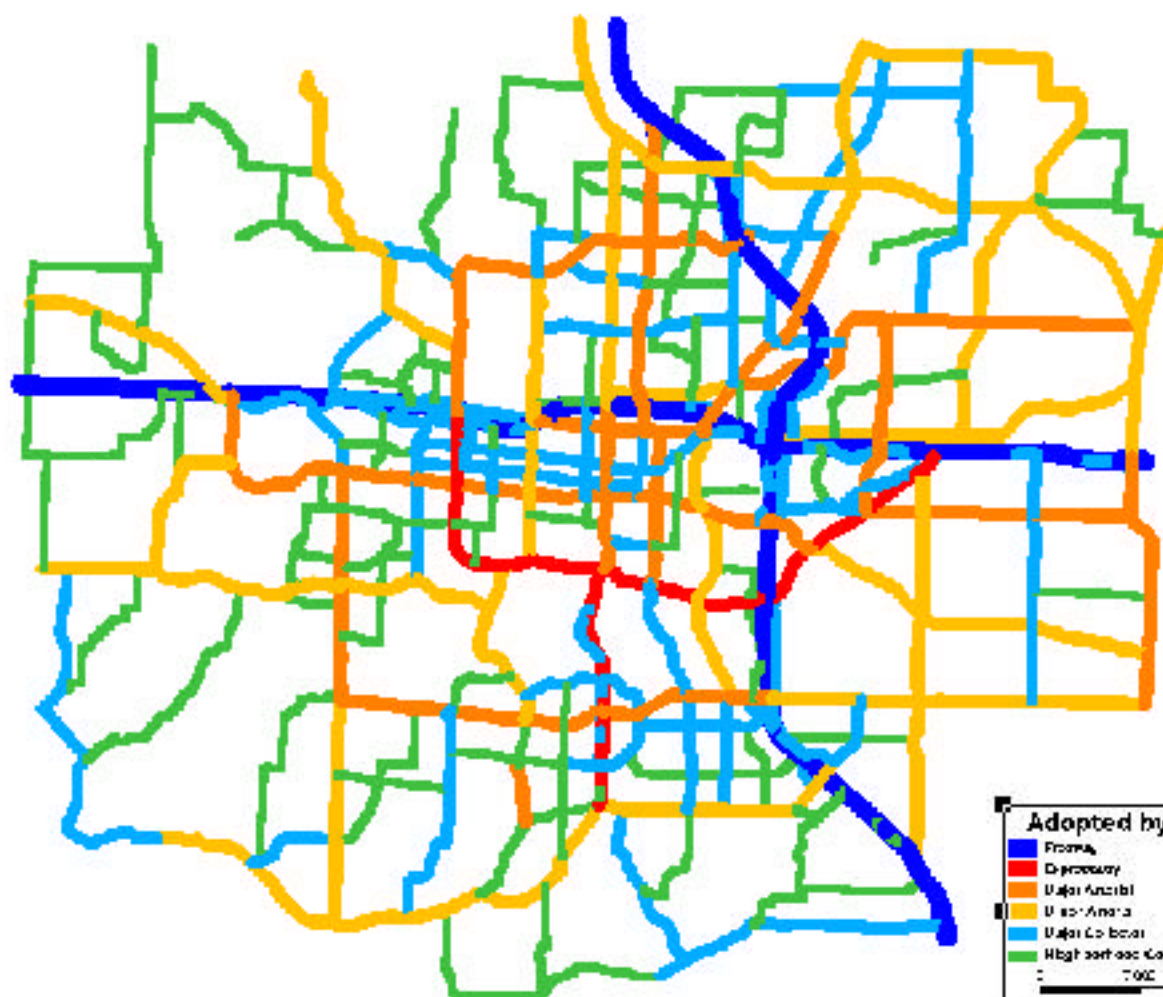
Metro Area Boundary



Metro 2020 Columbia Land Use Plan

- Open Space/Greenbelt
- Neighborhoods
- City Center
- Employment District
- Commercial District

Adopted February 5, 2001



Traffic Forecasting Evaluation

**Improve I-70 Advisory Group
Meeting 2 – Nov. 7, 2002**

*Second Tier Study
Columbia (SIU 4)*



Traffic Evaluation Overview

- **Tier 1 Approach**
 - Evaluated Statewide Needs
 - Macro Corridor Analysis (statewide traffic model)
- **Tier 2 Approach**
 - Evaluate Statewide and Local Needs
 - Integration of Macro and Micro Corridor Analysis
 - Close Coordination with City of Columbia
 - Local Area Traffic Model



Forecasting Methodology

Model Development

- Roadway Network
- Traffic Analysis Zones

Calibrated Model
(2000)

- Existing Traffic Counts
- Traffic Flows

Forecasted Model
(2020/2030)

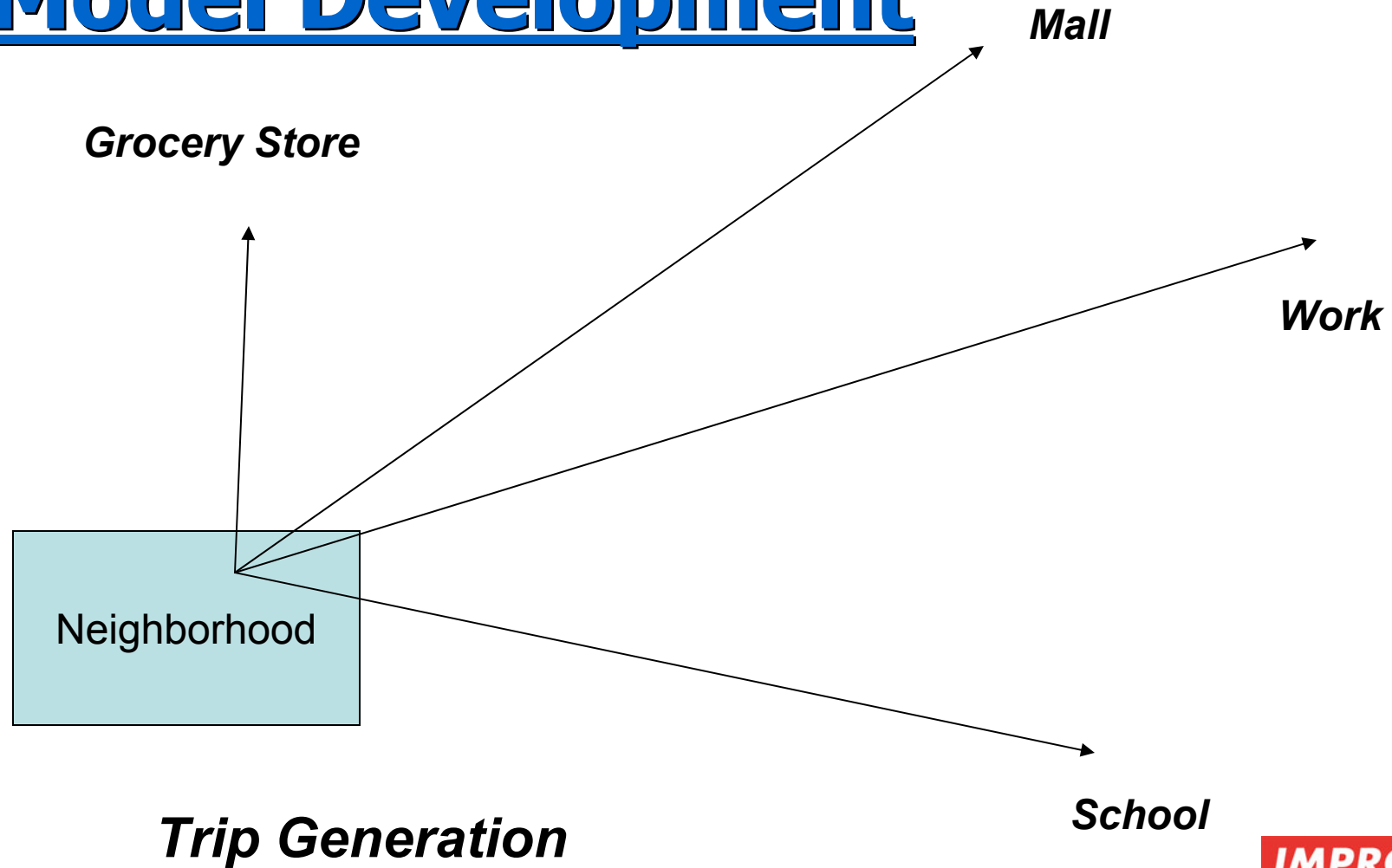
- Socio-Economic Forecasts

Alternatives
Evaluation

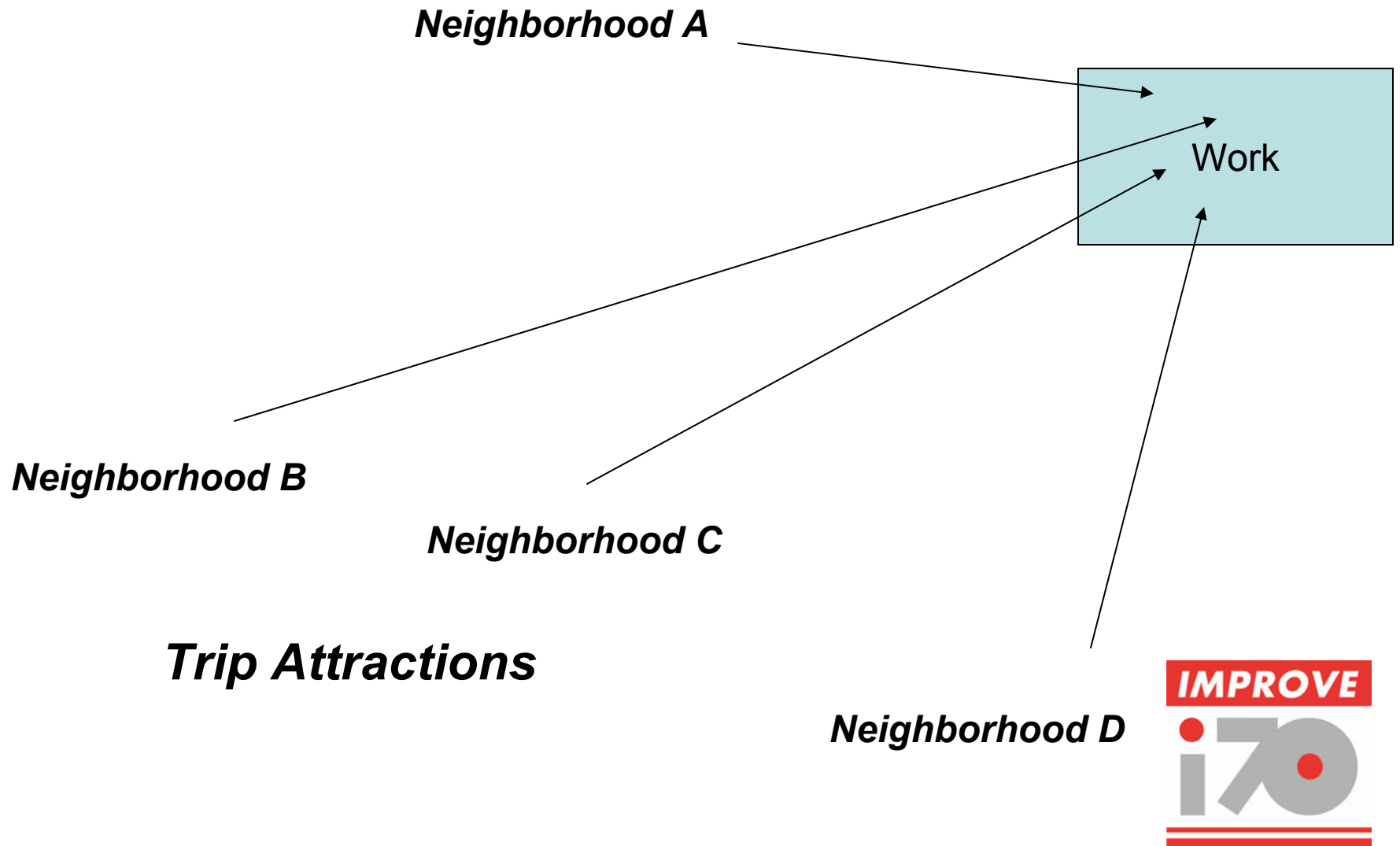
- Improve Existing
- Near North
- Far North



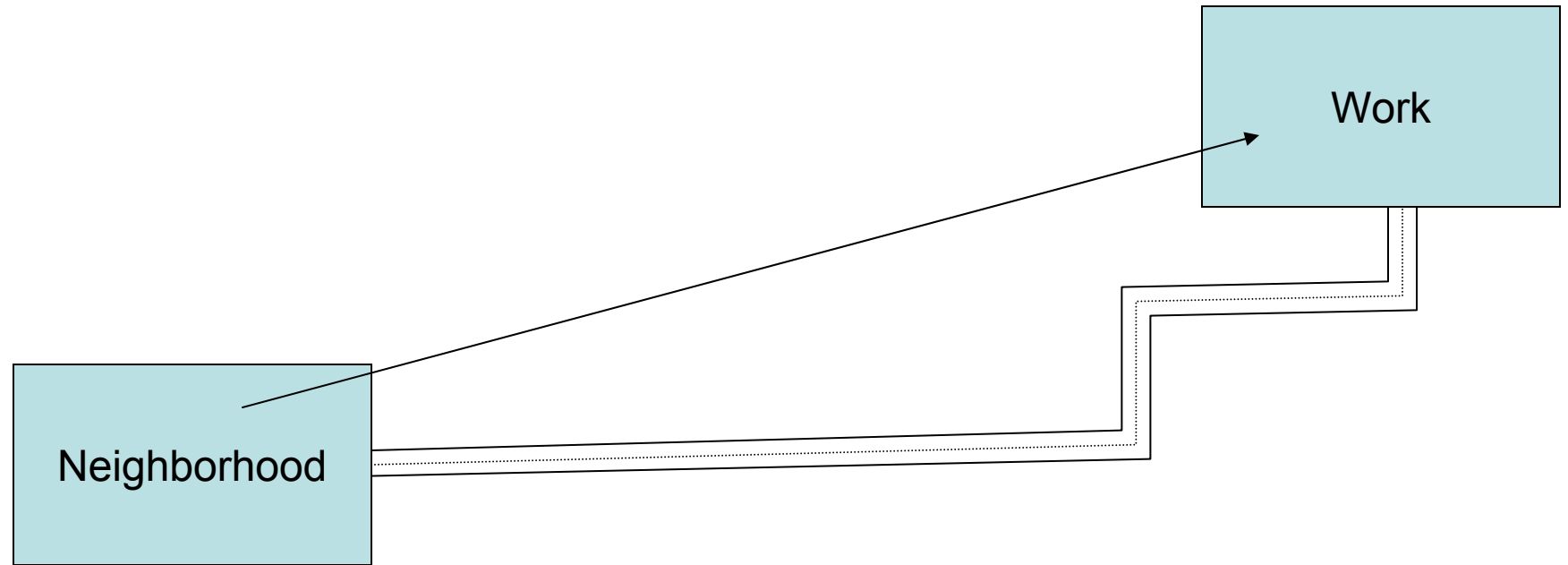
Model Development



Model Development



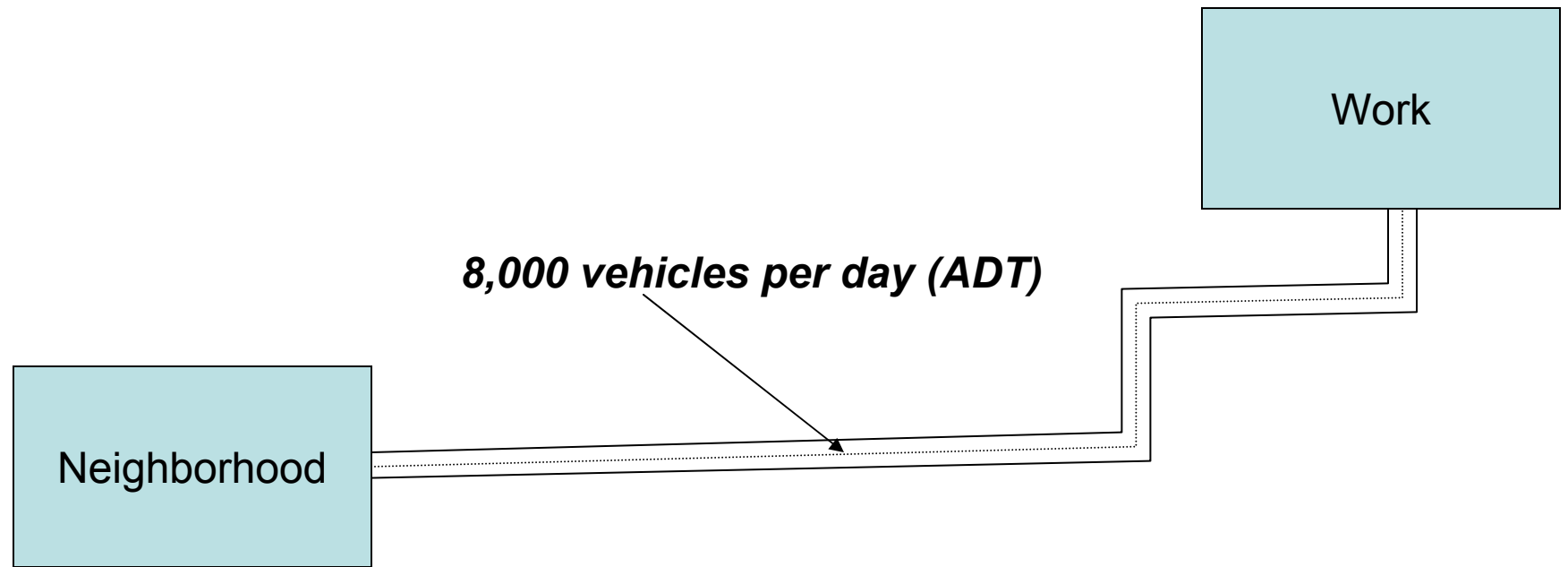
Model Development



Assign to Road Network



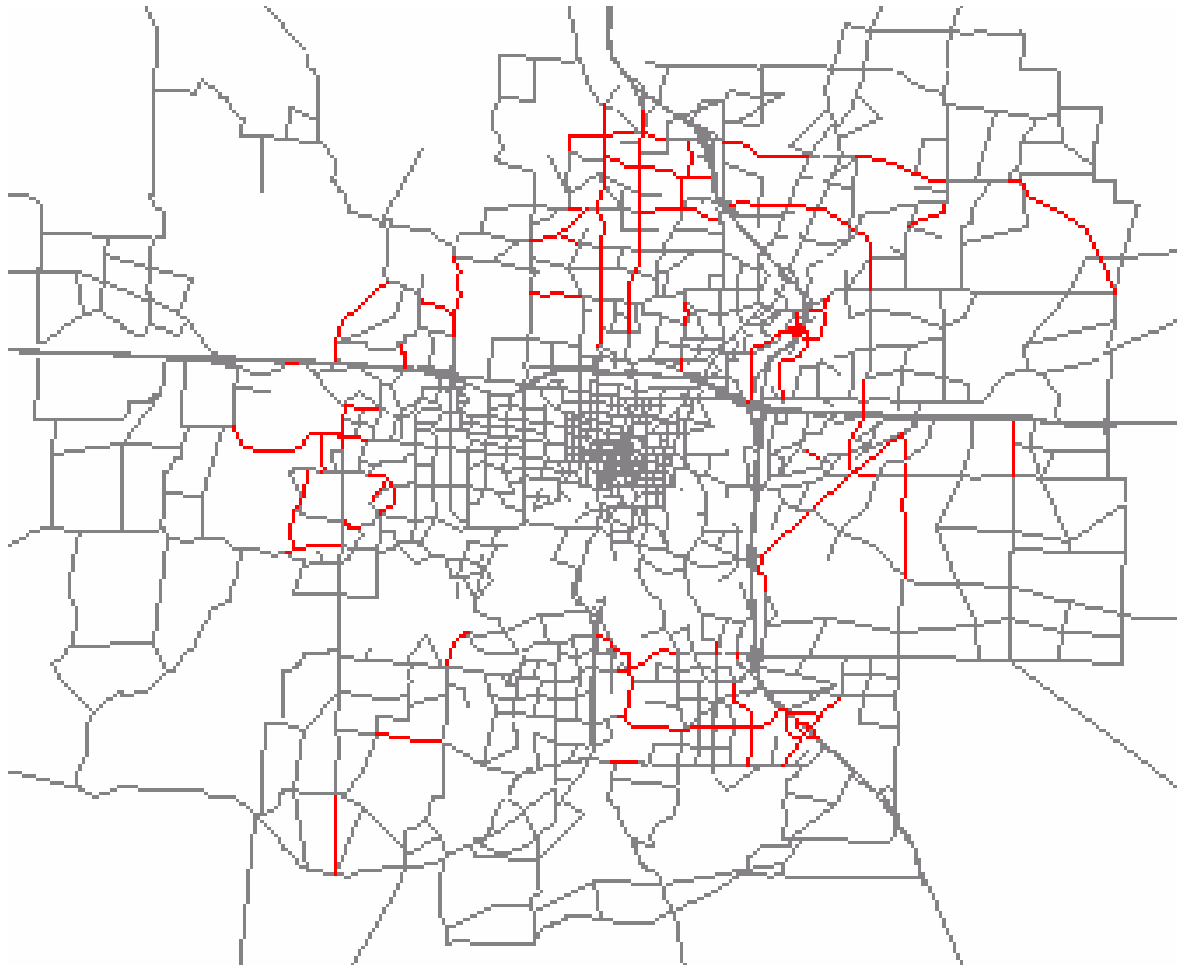
Model Calibration



Compare to Existing Traffic Counts



Forecasted Traffic



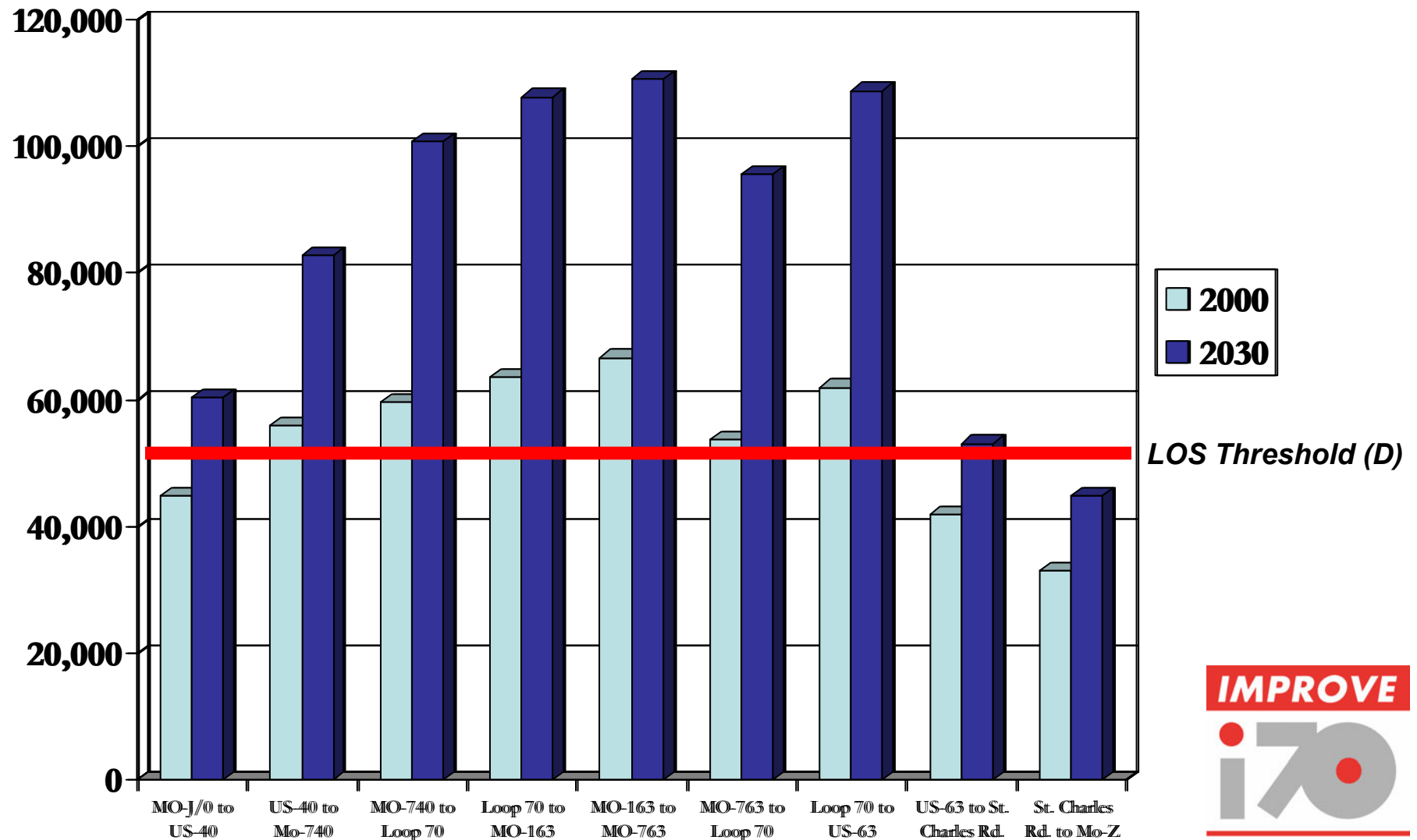
Existing + Committed Network (E+C)

Forecasted Traffic

- **Statewide Growth in Traffic on I-70**
- **Local Socio-Economic Forecasts
(City of Columbia)**
- **Land Use Charrette**
 - No Net Increase
 - Identify Shift in Development Patterns



No Build Traffic on I-70



Alternatives Evaluation

- **Key Determinates of Successful Alternative**
 - Local vs. Long-Distance Trips
 - Travel Time Savings (Distance vs. Average Speed)
- **Sensitivity Analysis**
 - Land Use Distributions
 - Interchanges (Number and Location)
 - Average Speeds
 - Truck Routing
 - Corridor Lengths
 - Improvements on Existing I-70



Additional Traffic Scenarios

In order to make an informed choice between the corridor options, it is critical that each corridor be given the best chance for attracting Interstate motorists, and therefore provide the most relief to existing I-70. To that end, the additional scenarios below are being tested to determine if they attract more Interstate traffic to the proposed corridors. This "sensitivity analysis" will ensure that each corridor is given the best opportunity for success before we begin to determine which corridors will receive further consideration.

Option	Proposed Facility	Proposed New Interchanges/ Cross Roads	Improvements to existing I-70 in Columbia area
Far North Corridor			
1A	New freeway facility with 2 lanes each direction	Maximum number of interchanges	Widened to 6 lanes
1B	New freeway facility with 2 lanes each direction	Maximum number of interchanges	Widened to 6 to 8 lanes
2	New freeway facility with 2 lanes each direction	Interchanges at select routes only	Widened to 6 to 8 lanes
Near North Corridor			
3A	New freeway facility with 2 lanes each direction	Maximum number of interchanges	Widened to 6 lanes
3B	New freeway facility with 2 lanes each direction	Maximum number of interchanges	Widened to 6 to 8 lanes
4	New freeway facility with 2 lanes each direction	Interchanges at select routes only	Widened to 6 to 8 lanes
5	New freeway facility with 2 lanes each direction	On the west segment only, terminate new freeway at US 63 with system interchange	Widened to 6 lanes
6A	New primary arterial facility	At-grade intersections with every north-south roadway (collector or higher), and interchange with US 63.	Widened to 6 lanes
6B	New primary arterial facility	At-grade intersections with every north-south roadway (collector or higher), and interchange with US 63.	Widened to 6 to 8 lanes
Improvements to Existing I-70 Only			
7			Widened to 6 lanes
8			Widened to 6 to 8 lanes
Business Loop 70			
9	Widen Business Loop 70 to 6-lane arterial.	New arterial interchange at 163. Connect Route PP to Business Loop.	Widened to 6 lanes

Meeting 1 - Questions and Responses

IMPACTS

1. Question: What are the plans for maintaining existing I-70 should a bypass corridor be chosen?

Response: Even if an "off-alignment" corridor is chosen as preferred, existing I-70 will continue to be maintained, and will even see some improvements, including:

 - auxiliary lanes,
 - improved access management at the Stadium Boulevard interchange, and
 - traffic-flow improvements at the US-63 interchange.

Cost estimates for the far north and near north corridors INCLUDE expenses for maintaining and improving existing I-70.
2. Question: What are the likely economic benefits/costs of each conceptual corridor?

 - How would businesses along existing I-70 be affected should the existing route be widened?
 - Would businesses along existing I-70 remain competitive if either the far north or near north alternative were selected?
 - Which corridor is the best community option from an economic point of view?

Response: The degree of impact to businesses would depend on a number of factors **(WSA elaborate – especially on direct vs indirect impacts.)**

According to the First Tier Environmental Impact Statement, widening the existing route would displace three to four times more businesses than making improvements in the far or near north corridors.

Expected economic benefits and impacts, as well as the number of expected displacements, will become more precise as alignments are developed during the Second Tier Study.
3. Question: What are the environmental and safety impacts of improvements in each conceptual corridor? How and when will this study answer questions about these impacts?

Response: Preliminary information on environmental and safety impacts of the conceptual corridors is available in the First Tier EIS, and will be discussed at tonight's meeting. The Second Tier Study will produce much more detailed information on the alternatives established in each corridor. This analysis will consider engineering, traffic (safety and efficiency), environmental and social/economic factors.

4. Question: What are the noise impacts of each option?

Response: Noise impacts are likely. Noise will be assessed and possible noise abatement measures will be considered for all the reasonable alternatives developed during the second tier.

TRAFFIC

5. Question: What are the implications of the various alternatives on distance, traffic volumes and travel time? How will this change over time?

Response: **WSA**

6. Question: What will the future distribution be between local vs. non-local traffic demand?

Response: **WSA**

7. Question: Will improvement options other than those developed during the first tier studies be considered?

Response: The First Tier Study considered a southern corridor which was found to be ineffective. The Second Tier Study will start with the options left from the first tier, but may also develop new options for improving travel on I-70. The current study is not limited to the results of the first tier.

8. Question: Will alternatives be considered that can address the local east-west traffic demand?

Response: **CH2M Hill**

9. Question: Could an alignment in the far north corridor be made more attractive with higher speed limits?

Response: **WSA**

- 10.** Question: Is it legally possible to require that truck traffic be diverted off existing I-70?

Response: **MoDOT**

- 11.** Question: If the existing route is widened, how would traffic be affected during construction, and what could be done to mitigate impacts to traffic?

Response: There would be impacts to traffic during improvements to the existing route, including delays and diversions. Specific impacts are not yet known. MoDOT's goal is to keep four lanes open during construction.

A preliminary plan for traffic control will be developed through the Second Tier Study and will be considered during the process of evaluating improvement alternatives. A more detailed traffic control plan will be determined when the project moves into design.

- 12.** Question: How long would construction last?

Response: It's too early to know how construction would be phased or how long it would last. Those decisions depend heavily on the availability funding and the rate at which the funding is provided.

- 13.** Question: To what extent might local planning and zoning regulations be used to guide future development?

Response: Typically a city uses planning and zoning regulations to guide development according to that city's master plan. The I-70 Second Tier Study is being conducted in coordination with the City's current Comprehensive Plan. The city could, if needed, adjust their comprehensive plan to complement the recommendations of the second tier study. More information will be provided at tonight's meeting during the Land Use presentation.

- 14.** Question: What can be learned from other communities that have faced similar decisions regarding widening or moving corridors off existing highway alignments (bypasses, relocations, outer belts)?

Response: A presentation and discussion on this topic is planned for the next meeting.

Meeting Summary

IMPROVE I-70 ADVISORY GROUP

3rd Meeting

Daniel Boone Regional Library
Friends Room
100 West Broadway
Columbia, Missouri

December 12, 2002

This is a summary of the third meeting of the Improve I-70 Advisory Group. It summarizes key informational and action items from the meeting.

GENERAL

Members Present

Members of the Advisory Group attending the meeting: Bernie Andrews, Jeff Barrow, Bob Bechtold, Elaine Blodgett, Susan Clark, Chip Cooper, Roy Dudark, Skip Elkin, Pete Herring, Chris Janku, Kory Kaufman, David Mink, Larry Moore, Tom Moran, Mike Morgan, Justin Perry, Pat Smith, and Bob Walters.

Dennis Donald and John Huyler of The Osprey Group facilitated the meeting.

Materials Available at the Meeting

Materials available for discussion at the meeting, in addition to the agenda, included:

- Questions and Responses from MoDOT
- Corridor Decision-Making Criteria
- Corridor Enhancements
- Wisconsin Case Study

In addition, the initial forecasts generated by the traffic modeling and a handout describing level of service were made available at the meeting.

Meeting Goals

The meeting fundamentally continued the focus on the alternative interstate corridors. The penultimate goal for the meeting was to determine if MoDOT, after hearing the traffic forecasts and from the Advisory Group, has sufficient confidence in what they have heard to feel comfortable thinking they can eliminate at least one of the alternative corridors under consideration. Other more specific goals included: 1) Receive legal and policy guidance from

MoDOT about truck diversions, speed limits, decommissioning of the existing interstate route, corridor enhancement alternatives, and funding and spending constraints; 2) Review preliminary guidance about objective measures for screening criteria; 3) Share and discuss results of initial traffic forecasts; 4) Clarify expectations about traffic modeling sensitivity analysis; 5) Initial discussion about economic impacts of altered interstate routes in similar-sized communities.

SUMMARY OF ISSUES AND ADVISORY GROUP INPUT

Legal and Policy Issues

Two items were included for the participants. One was a series of questions raised in earlier Advisory Group meetings about MoDOT's ability to adjust speed limits, the possibility of decommissioning interstate highways, and the ability to regulate truck traffic along with MoDOT's responses. The other was a document called Corridor Enhancements that addressed ideas related to urban design and highway enhancements that might be applied to interchanges, overpasses, and so on. At this time, these issues are being addressed by a corridor enhancement committee to develop a general framework for enhancements that can be applied corridor-wide. It is projected that aesthetic issues can begin to be addressed locally in the fall of 2003.

Ms. Kathy Harvey, MoDOT's project manager for all of the I-70 studies between Kansas City and St. Louis, highlighted the documents and addressed questions from the Advisory Group. There was interest in the potential enhancements. It was mentioned that some of the highway enhancements with which the Group was familiar were funded through a combination of developer, local and state funding. It was mentioned that the corridor-wide enhancement committee will help generate a baseline to help guide MoDOT's level and type of enhancement investment. Ms. Harvey also emphasized that safety improvements will need to take priority over enhancements. Many of the enhancement determinations will be developed during the final design phase of the project. Given the sideboards of safety and the overall enhancement guidelines for the entire interstate, there will be opportunity for local input and potential enhancements beyond what MoDOT alone would fund. Ms. Harvey also mentioned that the corridor-wide enhancement committee is meeting the Tuesday following this meeting and that minutes from the meetings can be made available if desired.

There were no questions regarding MoDOT's responses related to decommissioning or the regulation of truck traffic.

Criteria and Standards

Mr. Buddy Desai from CH2M Hill provided a presentation about level of service, the criteria that will be used to assess the corridors, and the standards by which these standards will be judged.

He initially went through a handout that described the level of service, which ranged from A through F. He noted that the photo that reflected level of service F was taken in Columbia. In his criteria, he has placed emphasis on level of service D as being a minimum acceptable level of service for urban areas during peak traffic.

His second topic of discussion was the criteria and standards or thresholds that would be used to help determine whether the various scenarios being developed sufficiently meet the traffic and safety purposes of the I-70 project and justify further and more detailed investigation. In other words, at a coarse level the corridors are initially screened and then, at a finer level, alignments within corridors will be generated and evaluated. The various thresholds were characterized as measures of effectiveness. They included average travel time in 2030, average speed in 2030, daily vehicle miles of travel in 2030 operating at LOS D, percentage of short-trip traffic in 2030, and crashes per million vehicle miles traveled in 2030.

These criteria and standards are integrally linked to the projected traffic that will need to be served in 2030.

Traffic Forecasts

Mr. Steve Wells from Wilbur Smith reviewed preliminary projections from the traffic model. The model incorporates assumptions from the City of Columbia regarding land use, population projections, and the build out of the City's traffic network. The initial results of the model were available as a handout at the meeting.

Mr. Wells noted that a number of questions had come up in earlier meetings that the traffic model can help address. These include questions such as how much traffic is local versus long distance and what is the percentage of trucks on the interstate? Answers to these questions help frame the discussion about how much traffic would be diverted to either of the northern corridors.

Mr. Wells explained some of the definitions he uses to describe the origin and destination of trips. For example, an internal to internal trip is one that starts and ends in Columbia. Internal to external starts in Columbia, but ends outside Columbia. External to external is a through trip, one that does not make any stop in Columbia. Some "through" traffic might stop in Columbia, in which case the trip would be counted as two trips, an external to internal and then an internal to external.

How much traffic and where is it heading? Mr. Wells described the flow of traffic, called a screen-line analysis, from the west and the east and discussed a diagram that showed where these trips were destined. He noted, for instance, that 84 percent of the traffic coming into Columbia from the west has a destination somewhere within Columbia. The remaining 16 percent has a destination outside Columbia with a large portion continuing on Interstate 70, but others taking other routes to destinations outside Columbia. A similar analysis was shown for traffic coming into Columbia from the east. In this case, 69 percent of the trips have a destination in Columbia. A comparable analysis was conducted for an internal stretch of the interstate. In this case, an even higher percentage of the trips are internal to internal.

The next logical question is where in Columbia are these travelers heading? In the year 2000, Columbia had about 27,000 trips a day entering the city from the west. Of the original 27,000 trips, only 2,400 exit the city on the other side of 63, which is about nine percent. Many of those entering the community head toward a southern destination. Sixty four percent of those coming into Columbia from the west have a destination on the south side of Columbia. What

is the implication of these numbers? Mr. Wells said you can make a logical argument that the people that have a destination south are not likely to use a northern alternative when their destination is to the south.

On the other hand, those who have a destination to the north are candidates to use a northern alternative. Under the best case scenario, Mr. Wells indicated that if all those heading north use a northern alternative, 27 percent of the total trips could potentially use that facility. And, for those traveling through Columbia, Mr. Wells indicated they are most likely to make their travel decision based upon whichever route is the quickest. If the northern route is quicker, then an additional nine percent are likely to take that route.

A similar analysis was shown for traffic coming into Columbia from the east. The results are similar. About 64 percent have destinations to the south, the total heading toward a northern destination is about 22 percent, and 14 percent travel through on the interstate to other external destinations.

How many trucks are on the highway? Studies have shown that trucks account for between 20 and 30 percent of all the traffic across the state on the interstate. In Columbia, it is not substantially different. In 2000, roughly 20 percent of the daily trips are truck trips. The percentage of trucks is lower within the more urban sections of Columbia primarily because there are more cars in urban segments.

There are currently between 9,000 and 14,000 trucks per day in Columbia. By the year 2030, it is projected that those numbers will almost double to between 16,000 and 25,000 trucks per day.

What does the model project for the various corridors? Mr. Wells shared several projections of traffic with the Group.

The first one is the no-build alternative. It projects traffic, assuming essentially no changes to the interstate. Currently, there are between 45,000 and 70,000 vehicles per day traveling through Columbia. By 2030, that number is expected to reach between 70,000 and 110,000. Even at today's traffic levels, several sections of I-70 through Columbia are at or exceeding service level D, which is the level considered by traffic engineers as unacceptable. By the year 2030, it only gets worse. The level of service will steadily move from level of service D to E and then to F, an extremely unacceptable level of service.

Mr. Wells noted that if the existing interstate is expanded, the volume of 2030 traffic would be slightly higher than projected under the no-build scenario, perhaps four percent more, but the level of service would be considerably better with much less congestion.

Mr. Wells shared with the Group his projections of how much traffic would be expected to be diverted to the Near North or the Far North in 2030. For the Near North, he projected that approximately 23,700 to 24,000 vehicles would be diverted, or about 26 percent of the traffic. In addition, an additional 4,100 trips would be generated by this new facility, based upon future projections of land use and population growth. Thus, approximately 28,000 vehicles are projected to use the Near North alternative with almost 68,000 vehicles remaining on the existing I-70.

In 2030 the Far North fares less well in terms of its ability to attract traffic. The model shows that about 5,500 vehicles that are currently using I-70 would be diverted to the Far North alternative. In addition, it is estimated that an additional 2,300 trips will be generated locally, based on development in the area. Thus, a total of roughly 8,000 trips per day are projected to use the Far North alternative in the year 2030. Mr. Wells indicated that what they are seeing is that the Far North is simply too far out and adds too much time to the trip to attract travelers. Most will elect to remain on the existing I-70 as they pass through Columbia.

Mr. Wells concluded noting that over the next several weeks, they will be running the sensitivity analysis. It will help determine how sensitive these projections are to various assumptions such as changes in speeds, number of lanes or capacity, and number and location of interchanges. These results will be available at the Advisory Group's January meeting.

Group Discussion

The bulk of the meeting focused on the Advisory Group's discussion of the implications of the traffic forecasts and, in particular, input from the Group to MoDOT about continued evaluation of the various Columbia interstate corridor options.

There were some clarifying questions about the modeling. A number of questions related to truck traffic in the community and how the percentages might change over time. There were also questions about specific types of trips and how they are reflected in the model. For instance, if a traveler is driving from St. Louis to Kansas City, but stops at the local McDonald's, is that an external to external trip? In fact, this type of trip would be classified as two distinct trips – the first being external to internal and the latter being internal to external.

There was considerable discussion about the viability of the corridors as a complement to the existing interstate. This was especially the case for the Far North alternative.

- Local traffic. Some saw the capacity problem on the interstate as it travels through Columbia as fundamentally a local issue. As one of the first speakers commented, "if 64 percent of the traffic is going to be southbound to internal destinations and another good proportion of the remaining traffic is going somewhere else within the Columbia area, it seems like we have a local traffic problem. . . . (What's needed is) local solutions to local traffic problems." Many urban areas do rely on parts of the interstate system to provide for local needs.
- Timing. There were questions about timing. There was concern that if the environmental studies required a couple of years to complete, additional development would take place to the north, and the required right-of-way would be increasingly unavailable or more costly. And, a related question was that if neither of the northern alternatives were to be pursued does that allow construction to begin substantially quicker? Mr. Desai responded to the latter question by saying that the simple answer is "no." There are a number of review cycles that need to occur and regulatory agencies that need to be involved regardless of the number of options under consideration. So it is less a matter of the options under consideration and more a function of the EIS requirements, including review periods. Mr. Desai also mentioned that the financial resources available from

MoDOT have also caused the study process to be extended beyond what was originally envisioned.

- Far North assessment. Many were critical of the Far North as a viable alternative. As one Group member noted, “I can't imagine that we would spend the money to do a Far North, unless there's some way to make the speed limits -- make it attractive, and it doesn't look to me like you can drive fast enough or slow enough on the two alternatives to make it work. I can't imagine the Far North working.” Another said, “Neither loop makes a lot of sense, but the Near North makes more sense than the Far North.” No one spoke about the merit of continuing to consider the Far North in more detailed evaluations.
- Criteria for corridor screening. There were some concerns about whether this analysis focuses purely on traffic when economic and environmental factors might suggest another alternative makes more sense. The alternatives that will be considered for more detailed economic and environmental evaluation must first be shown that they can meet the operational and safety needs of the interstate from a traffic perspective. If they do not meet the traffic objectives, there is no merit in assessing the various impacts when the alternative fails to address the traffic needs.
- Rising costs. As development occurs to the north, there is concern that the costs for right-of-way acquisition will rise dramatically and that the current cost estimates are too low. One person noted that “There's no way in hell it is going to cost \$250 million. It'll cost \$600 to \$700 million, especially if you choose the Near North.”
- Distances. Some thought the driving distance along the corridors would vary depending upon whether the distance is measured from the inside, the middle or the outside of the corridor. At this point, the models assume the driving distance is down the middle of the mile-wide corridor. Mr. Wells noted that this is one of the sensitivities that will be tested over the next several weeks. For example, if the Near North were four-tenths of a mile shorter, does that make a difference in its ability to attract traffic? The response from one member of the Group was that, if anything, the distance, given development pressure, would be pushed toward the outer limit of the corridor and therefore longer. Mr. Wells noted that the longer you make the distance of the alternative, the less likely people will use it.
- Accuracy of the projections. For some, the projection of the Far North accommodating only 7,800 vehicles seemed “terribly low.” For example, the traffic volume of Route B near Hallsville and Centralia was estimated to currently be over 9,000 vehicles per day.
- Basis for population projections. Some expressed concern that the City's projections might rely too heavily on Census figures that do not accurately reflect the growth pressure to the north. Mr. Dudark noted that the City's figures do incorporate those plats and trends that are showing growth to the north beyond the 2000 Census data.
- The interstate as a barrier. While the focus of this evaluation is the traffic, some expressed concern that the interstate for them is a barrier in the community. To think of two highways “cutting right through the center of our future city, the heart of our future city” is not considered a positive. Adding a Near North, we would have “two interstates cutting right through the heart of the city.” Another person said, “I think the ideal thing

would be for us to just save I-70 the way it is. We have one major interstate that's cutting our community. Let's not have two.”

- Planning a transportation system. Some saw a need to address local and state traffic needs more comprehensively. “There really needs to be a marriage between the local road system and whatever we’re going to do on the interstate, so we don’t make I-70 into a local roadway.” Others saw value in concentrating the investment in the existing system and avoiding both of the northern options. “I’m wondering if we turned all of our investment towards the existing corridor, could we actually make a facility that really works with good interconnections with city streets and adequate lanes to carry the through traffic and the local traffic.”
- Sprawl. The Far North to some was seen as stimulating urban sprawl. “If we want to guarantee that we have urban sprawl all the way up there, then let’s have the Far North bypass. . . . I don’t think the costs of what it’s going to do to Boone County would warrant us to putting it far north.”
- Business Loop 70. Part of the system thinking extended to thinking about how to enhance the capacity of Business Loop 70 for local east-west traffic and thus relieve some of the pressure on the interstate. There was some concern about whether state and federal funds could be used for this. Ms. Harvey commented, “It is a real complicated question. Can we spend money on upgrading Business Loop 70, yes. Can we spend money to build you a local road network, I don’t know. The money that comes from different pots is earmarked for different things.”
- Funding availability versus a decision-making process. There were some who wondered about allocating the funds for different transportation needs in the community to optimize the investment. Ms. Harvey clarified that there is no fixed budget that is available to be spent. The decision-making process is such that the best alternative is determined and cost is a final evaluation criterion. “The process that we’re going through is come up with the right solution for the problem and then to identify how much money it’s going to cost and then try to figure out the funding and a budget.”

After much discussion, the Group concluded that the Far North had little merit. There were issues with the Near North as well, but it seemed to attract sufficient traffic volume to warrant further consideration and analysis. Future evaluations, primarily through the sensitivity analysis, will focus on the existing I-70 and the Near North corridors.

Economic Impacts: A Preliminary Evaluation

Mr. Wells discussed economic impacts primarily from the perspective of case study material developed in the state of Wisconsin. He was asked to hit the highpoints.

He mentioned there are really two ways to assess the overall potential economic development implications of any of these types of improvements. One is to examine what has occurred in other communities. You can evaluate the economic data before and after the improvement. That was what was done in Wisconsin. Similar studies have been conducted in other parts of the country, including Missouri, but these results are dated. Most often, these evaluations also focus on communities that are smaller in size than Columbia.

Some highlights:

- Different businesses are more traffic dependent and therefore are more likely to experience impacts.
- Many businesses, even though they are located on I-70, serve a local population.
- If one of the corridor alternatives is built, it is not a bypass similar to what has been built in other communities.
- Even with an alternative highway being built, such as one in the Near North corridor, traffic along I-70 is still projected to grow.

This was simply a preliminary discussion about economic impacts. More specific analyses will be conducted over the next several months as more definitive alignments are identified.

SUMMARY AND NEXT STEPS

At the conclusion of the meeting, several logistical items were covered. Mr. Steenbergen from MoDOT mentioned at upcoming public meeting to discuss improvements to the I-70/63 interchange. He characterized it as a safety project that involves adding left-turn lanes, adding auxiliary lanes, and realigning and lengthening ramps.

Mr. Brendel, also from MoDOT, indicated that there will be a major mailing about the Interstate 70 project on a statewide basis. It will go out the week following the Advisory Group meeting and describe the vision for the interstate and how this planning process is being conducted throughout the state. He also mentioned that the www.improveI70.org website has moved through its next generation of development and now contains a good deal more information than previous versions, including information that is specific to various segments of the interstate such as Columbia. Future technical documents, as they are prepared, will appear at this website. Finally, he mentioned that a public meeting would likely be scheduled to occur in Columbia in April.

Ms. Harvey concluded that given what she had heard from the Group and given the traffic data presented, MoDOT will not be pursuing the idea of decommissioning and the future traffic sensitivity analysis to be conducted over the next few weeks and presented at the January meeting will not include the Far North alternative. The focus will be on the existing route and the Near North option.

The next meeting is scheduled for Thursday, January 30th. The location will again be at the library. Topics anticipated to be covered include the traffic forecasts and sensitivity analysis, the application of the criteria and related standards, and next steps in the planning process.

Upcoming Advisory Group Meeting

January 30th

Agenda

IMPROVE I-70 ADVISORY GROUP

Meeting 3
4:00-6:30 p.m.
December 12, 2002

Daniel Boone Regional Library
100 W. Broadway
Friends Room
Columbia, Missouri

Meeting Goals: 1) Receive legal and policy guidance from MoDOT about truck diversions, speed limits, decommissioning of the existing interstate route, corridor enhancement alternatives; 2) Review preliminary guidance about objective measures for screening criteria; 3) Share and discuss results of initial traffic forecasts; 4) Clarify expectations about traffic modeling sensitivity analysis; 5) Initial discussion about economic impacts of altered interstate routes in similar-sized communities.

4:00 Convene Meeting

Dennis Donald and John Huyler, The Osprey Group

Legal and Policy Guidance from MoDOT

Kathy Harvey, MoDOT

4:30 Traffic Analysis, Projections, and Corridor Screening

Decision Criteria and Thresholds for Corridor Screening

Buddy Desai, CH2M Hill

Travel Market Analysis, Preliminary Results of Traffic Models and Anticipated Sensitivity Analysis

Steve Wells, Wilbur Smith

Implications of Forecasts and Future Analysis for Corridor Selection

Facilitated discussion

6:00 Economic Impacts – The Experience from Other Communities

Steve Wells, Wilbur Smith

6:20 Closing

Dennis Donald and John Huyler, The Osprey Group

6:30 Adjourn

Meeting 2 – Questions and Responses

1. If a northern option is chosen for Interstate 70, through Columbia, would it be possible for MoDOT to require trucks to use the new I-70 lanes? How would trucks with Columbia originations and destinations maneuver through town?

MoDOT can regulate trucks if they are oversize or overweight or carrying hazardous materials, and can regulate roads and bridges if their condition would not allow a truck to use it. MoDOT does not have legislative authority to regulate truck traffic and routing of those trucks that are not oversize or overweight in any more restrictive or different fashion than all other vehicular traffic on the state highway system.

2. What is the lowest allowable speed limit for an interstate facility?

By state law and by federal regulation, there is no low end for a posted speed limit on state highways or interstates. There is only a maximum allowable speed limit, mandated by state law, which in Missouri is 70 mph. Beyond that, the responsibility for setting a speed limit is MoDOT's. The speed limit must be appropriate for the type of facility and the type of usage and cannot be set artificially low. FHWA requires that the speed limit on an interstate highway be safe, reasonable and serve the traffic using it. Typically when MoDOT sets speed limits it looks at how the existing traffic is using the roadway and how it is being driven and the speed limits are set at the 85th percentile of what the traffic is actually driving, providing that the design characteristics of the roadway are appropriate.

3. Is it possible to decommission an interstate highway, and if so, what are the ramifications of such an action?

Yes, it is possible to decommission an existing interstate highway. The federal statutes allow it, however 23USC 103 (c) is very restrictive and complex. It would require coordination with CATSO, FHWA headquarters in Washington, D.C., and the American Association of State Highway and Transportation Officials.

Before decommissioning a portion of I-70, it would have to be proven workable and the right thing to do for interstate travelers, Columbia and the State of Missouri. Because the existing right of way is very valuable, and existing traffic patterns and land uses are established, MoDOT and the public stand to lose a lot if a local roadway is created in I-70's current location.

Because of the existing mix of residential, commercial and retail development in the I-70 corridor through Columbia, a significant amount of traffic would still need to use the road. Because so many desired destinations exist in this area, a four-lane roadway with stoplights may not provide enough capacity; six or eight lanes may be needed. In other words, the roadway still needs to serve the public that wants or needs to use it. All of these issues would need to be explored in great detail before this study could make such a recommendation.

Also to be taken into consideration would be those businesses in the area of I-70 that depend on interstate traffic to provide their client base. How would they be affected if the interstate was replaced with a city street?

Ownership of a decommissioned I-70 is an associated issue. MoDOT already owns and maintains Business Loop I-70, which basically functions as a city street. It is extremely unlikely that MoDOT would agree to own a second one. Therefore, for this idea to be advanced, the City of Columbia would need to be willing to take over either the existing Business Loop 70 or the downgraded I-70 corridor.

4. If the current I-70 through Columbia were to be decommissioned, would MoDOT be able to spend federal funds to convert the highway to a local thoroughfare? Would MoDOT be willing to use state funds in this manner?

Yes, some of MoDOT's federal money and any of its state money could be used for this type of work. One criteria for eligibility would be that the improvements be identified as a need in a NEPA document such as the one this study is preparing for Columbia. However, it would have to be prioritized against all of the other needs in the state and compete for funding. In MoDOT's present limited funding environment in which it does not have enough resources to meet all of Missouri's transportation needs, the Missouri Highways and Transportation Commission has said that its top priorities are to "take care of what we have" and to "finish what we have started."

MoDOT's federal funding is earmarked for various purposes like interstate maintenance, National Highway System, Surface Transportation Program (STP), bridge replacement and CMAQ (air quality). STP, any area funds, would be the most likely to qualify for this type of project, but MoDOT's 2002 annual allocation in this category was only \$52 million.

Despite the fact that federal funds were originally used to construct this facility, MoDOT would not be required to pay that money back to the FHWA.

Corridor Enhancements



*Bruce R. Watkins Drive (71 Highway),
Kansas City, Mo.*



Papago Freeway (I-10), Phoenix, Ariz.

Transportation enhancements (also known as urban design) are aesthetic elements that give a transportation corridor its appearance. Examples of these elements include landscaping, lighting, signing, and the shapes, colors and textures of bridge piers, barriers, retaining walls and sound walls.

MoDOT is committed to corridor enhancements.

As evidenced by work on I-64 (www.thenewi64.org), the New Mississippi River Bridge Project (www.newriverbridge.org), both in St. Louis, and Bruce R. Watkins Drive in Kansas City, MoDOT understands the need for context-sensitive design. In each of these projects, structured processes were put in place for making urban design decisions. The processes involved a broad range of community officials and interests who worked together with MoDOT to determine enhancement plans.

A structured process is being developed for I-70 corridor enhancements.

This is a unique project and the first of its size in Missouri to consider urban design/enhancements. While actual design decisions will not be made until after the Second Tier Studies, MoDOT is currently crafting a process that will: ensure some degree of consistency in I-70 enhancements across the state; ensure enhancements are safe and affordable; and keep options open for citizen involvement in establishing or reinforcing community identities.

A Study Management Group has been assembled for the purposes of high-level coordination of the overall corridor program with the various coordinating agencies. The SMG has three subcommittees that will develop mitigation and enhancement plans for the overall I-70 corridor and for strategic natural areas of the corridor: 1) Corridor Enhancement Subcommittee; 2) Overton Bottoms Subcommittee; and 3) Mineola Hill Subcommittee. The subcommittees are composed of representatives from applicable federal, state and local agencies.

The Corridor Enhancement Subcommittee hopes to establish a framework for corridor-wide enhancements by fall 2003. This framework will be used to guide community discussions on how to apply enhancements locally. Final enhancement plans will be included in the appropriate section's environmental document.

Corridor enhancement efforts began in the First Tier.

The First Tier Study recognized the opportunity for combining I-70 improvements with other initiatives and developed an agency consortium to devise a corridor-wide enhancement plan. The plan is intended to promote joint development of various local, state and federal initiatives along I-70 and enhance the travel experience for its travelers. Enhancements could promote the corridor as more than just a transportation link, but a vital part of the state's tourism and recreation resources.

Elements of the First Tier Plan included:

- Context-sensitive solutions -- Landscaping and beautification including the consideration of native and contextual habitat enhancements at key areas such as the major floodplain crossings.
- Wildlife mitigation and wetland mitigation plans.
- A coordinated plan to showcase Missouri – its history and natural resources – at rest areas and tourist centers, including information kiosks and general information.
- Specific joint development projects, including:
 - Overton Bottoms – Items include joint and coordinated construction, a tourist/information center, wetland mitigation, bike and pedestrian access to the KATY Trail via a new Missouri River Bridge, recreational trails in the floodplain, and billboard controls.
 - Mineola Hill – Items include billboard controls, scenic enhancement, Graham Cave State Park, Slave Rock, and the historic Graham Farmstead.

During the First Tier Study, initial meetings were held with the appropriate agencies for both the Overton Bottoms and Mineola Hill areas. These meetings set the stage for joint development efforts of the Second Tier studies.

Corridor Decision-Making Criteria
Identified In the Travel Demand Model

Criterion	Measurement	What will this tell us?	Why is this criterion important?	Process	Thresholds
1) Average Travel Time in 2030	Minutes	How much time certain trips would take in the proposed corridors.	Unlike average speed (Criterion 2), average travel time enables comparisons of corridor alternatives that may enable higher travel speeds but longer travel distances.	Use model to compare the effect of an additional corridor on I-70 travel times for various trips to a “full-build” I-70 concept.	Travel times will be computed using the minimum travel speed for LOS D* (51.1 mph) and the length of each trip.
2) Average Speed in 2030	Miles per hour	The speed vehicles would be able to travel in the proposed corridors.	Expresses the actual speed at which vehicles would be able to travel at different times of the day.	Use model to compare the effect of an additional corridor on I-70 travel speeds to a “full-build” I-70 concept.	Minimum acceptable average speed will be 51.1 mph (lowest speed for LOS D*).
3) Daily Vehicle Miles of Travel in 2030 operating at LOS D*	Percentage of the daily vehicle miles traveling at LOS D* or better within a corridor	The percentage of the total vehicle miles traveled per day that will operate at the minimum acceptable level of service (LOS D*).	Provides a measure for how efficiently the corridor would perform.	Use model to quantify the VMT operating at LOS D* or better on the I-70 corridor.	The amount of VMT that would be classified at or above LOS D* (Level of service threshold similar to that of 1 & 2).
4) Percentage of Short Trip Traffic in 2030	Percentage of total trips that are considered short trips (less than 2 miles)	Whether an additional conceptual corridor (or other improvement) would influence the amount of short trips on I-70, thereby impacting service for longer-distance trips.	Can help determine the efficiency of investing in one corridor vs. another.	Use model to determine where trips are originating from and destined to for each link on I-70.	Threshold is still under consideration. Further discussion on the threshold is ongoing.
5) Crashes per Million Vehicle Miles traveled in 2030	Crash percentages compared with hourly traffic volumes	Whether crashes on I-70 in 2030 are related to congestion.	Quantifies the relative safety of a corridor and determines if crashes are congestion-related.	Use existing crash and traffic data to evaluate link-by-link crashes with the time-of-day occurrence.	Missouri statewide urban interstate crash rates.

***Level of Service Categories:**
A - Uninterrupted traffic flow, lower volumes and higher travel speeds.
B - Stable traffic flow, increasing traffic and reduced travel speeds due to congestion.
C - Stable flow, increasing traffic; travel speeds and maneuverability restricted by higher volumes.
D - Approaching unstable flow, tolerable travel speeds although considerably affected by changes in operating conditions.
E - Unstable flow, with possible stopped conditions, lower operating speeds than LOS D, volume approaching capacity of the roadway.
F - Unstable flow, with speeds at low or stopped condition for varying times caused by congestion when downstream traffic volumes are at or over the roadway capacity.

Level of Service Categories



LOS A - Uninterrupted traffic flow, lower volumes and higher travel speeds.



LOS B - Stable traffic flow, increasing traffic and reduced travel speeds due to congestion.



LOS C - Stable flow, increasing traffic; travel speeds and maneuverability restricted by higher volumes.



LOS D - Approaching unstable flow; tolerable travel speeds although considerably affected by changes in operating conditions.



LOS E - Unstable flow with possible stopped conditions, lower operating speeds than LOS D, volume approaching capacity of the roadway.



LOS F - Unstable flow with speeds at low or stopped conditions for varying times caused by congestion when downstream traffic volumes are at or over the roadway capacity.

PICTURES TAKEN ON I-70, JUNE 21 and JULY 13, 2002

Traffic Forecasting Evaluation

**Improve I-70 Advisory Group
Meeting 3 – Dec 12, 2002**

*Second Tier Study
Columbia (SIU 4)*



Local vs. Through Trips



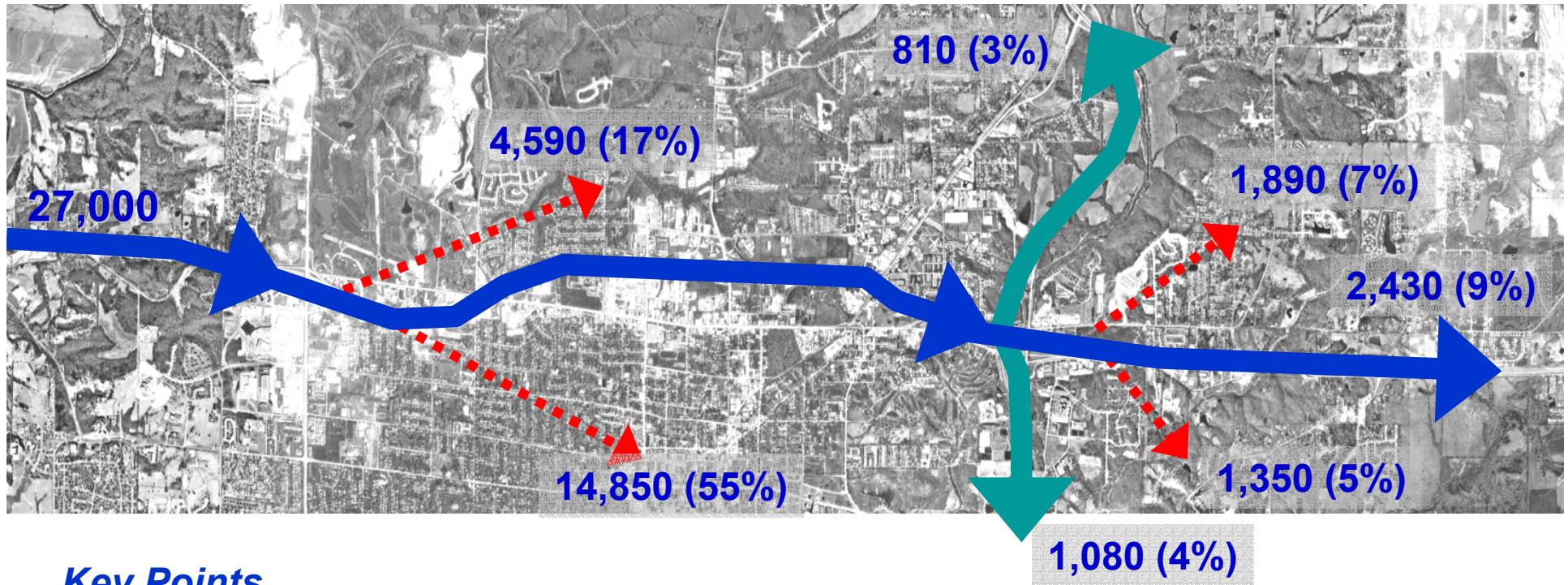
Key Points

- 20% of trips are long-distance; 80% are local.
- 13,000-14,000 vehicles per day are long-distance.

	<i>West</i>	<i>Central</i>	<i>East</i>
<i>Internal to Internal</i>	--	51%	--
<i>Internal to External; External to Internal</i>	84%	29%	69%
<i>External to External</i>	16%	20%	31%



Destinations – From the West

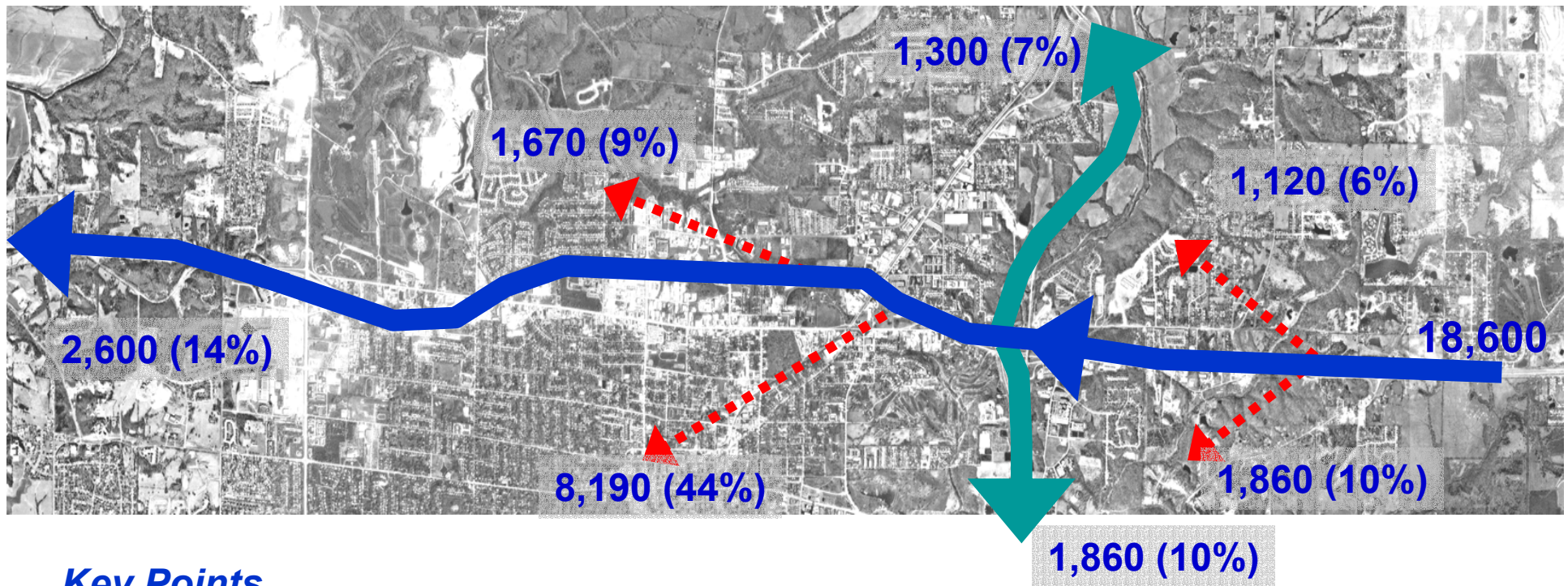


Key Points

- Northern alternatives do not capture any of the traffic destined south of I-70 (17,280 = 64%).
- Northern alternatives only capture a portion of traffic destined north of I-70 (Best Case: 7,290 = 27%).
- Long-Distance I-70 (2,430 = 9%) depends on travel time.



Destinations – From the East



Key Points

- *Northern alternatives do not capture any of the traffic destined south of I-70 (11,910 = 64%).*
- *Northern alternatives only capture a portion of traffic destined north of I-70 (Best Case: 4,090 = 22%).*
- *Long-Distance I-70 (2,600 = 14%) depends on travel time.*

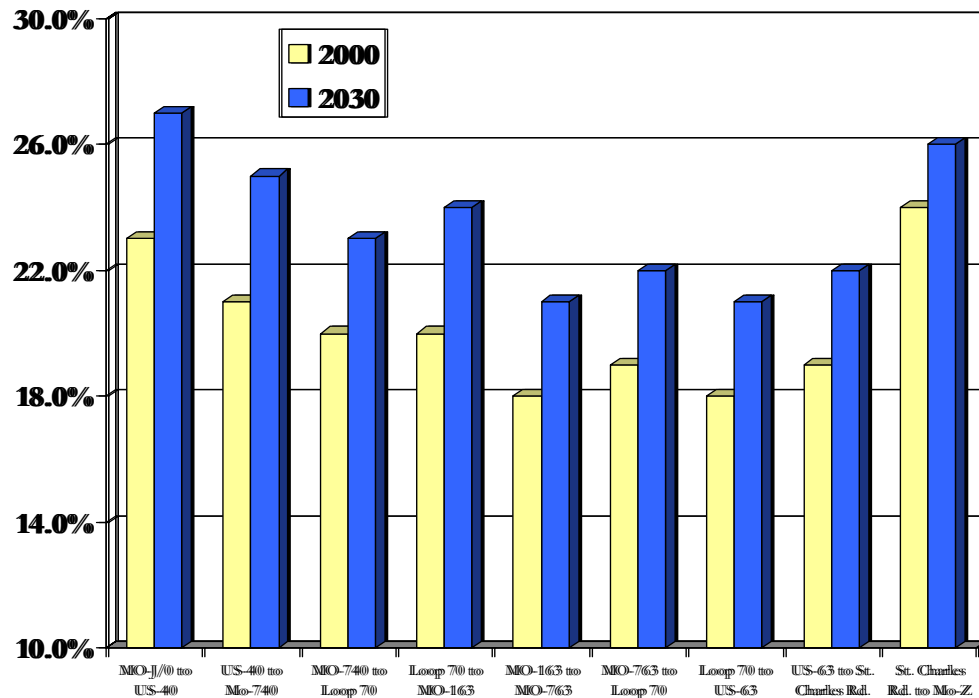


Truck Percentages

Average Percent Trucks

2000 – 20%

2030 – 23%

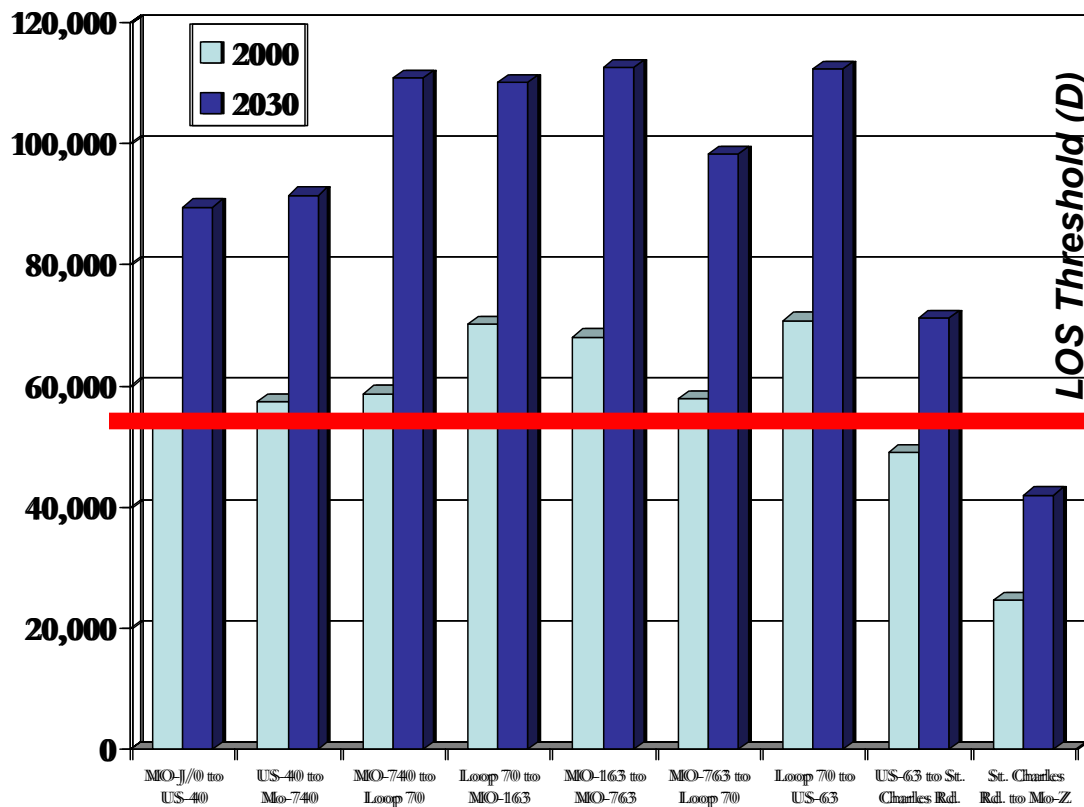


Key Points

- 9,000-14,000 trucks per day.
- 15%-20% have local origin and/or destination.



No-Build Traffic on I-70

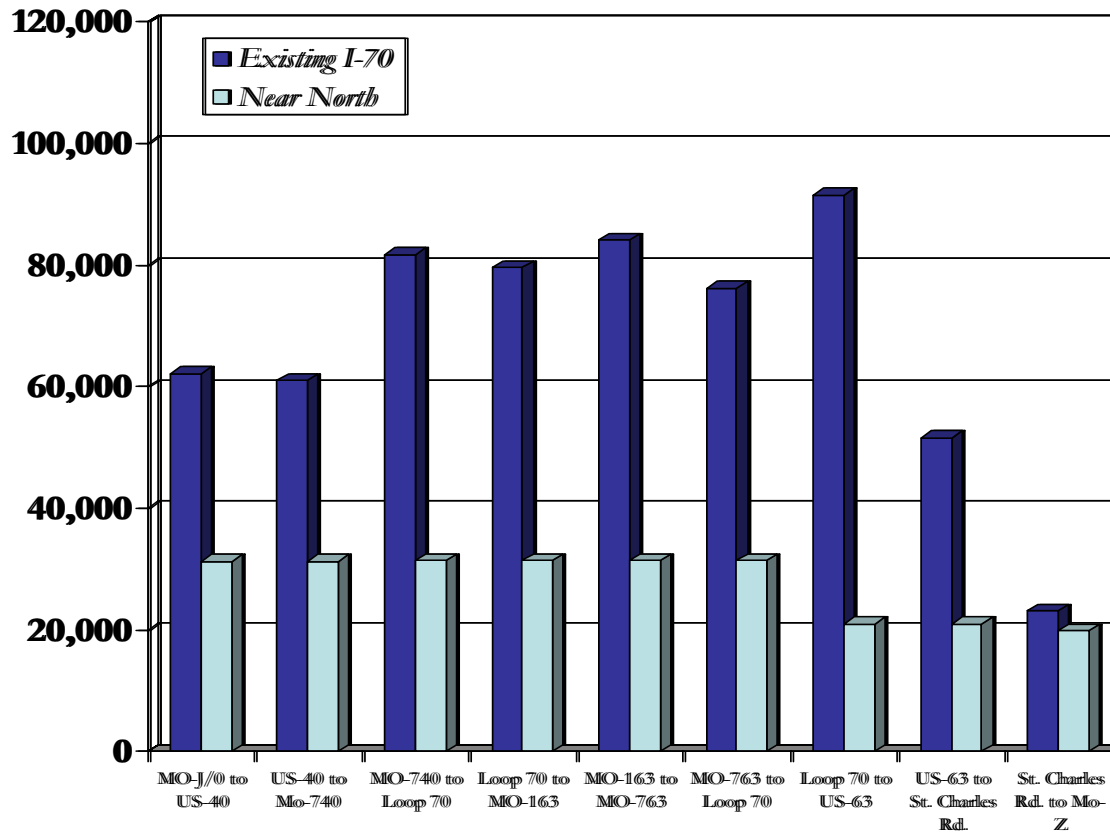


Key Points

- Year 2000: 45,000-70,000 vehicles per day.
- Year 2030: 70,000-110,000 vehicles per day.
- All I-70 roadway segments in Columbia operate at an unacceptable level by 2030.



Near North Alternative (2030)

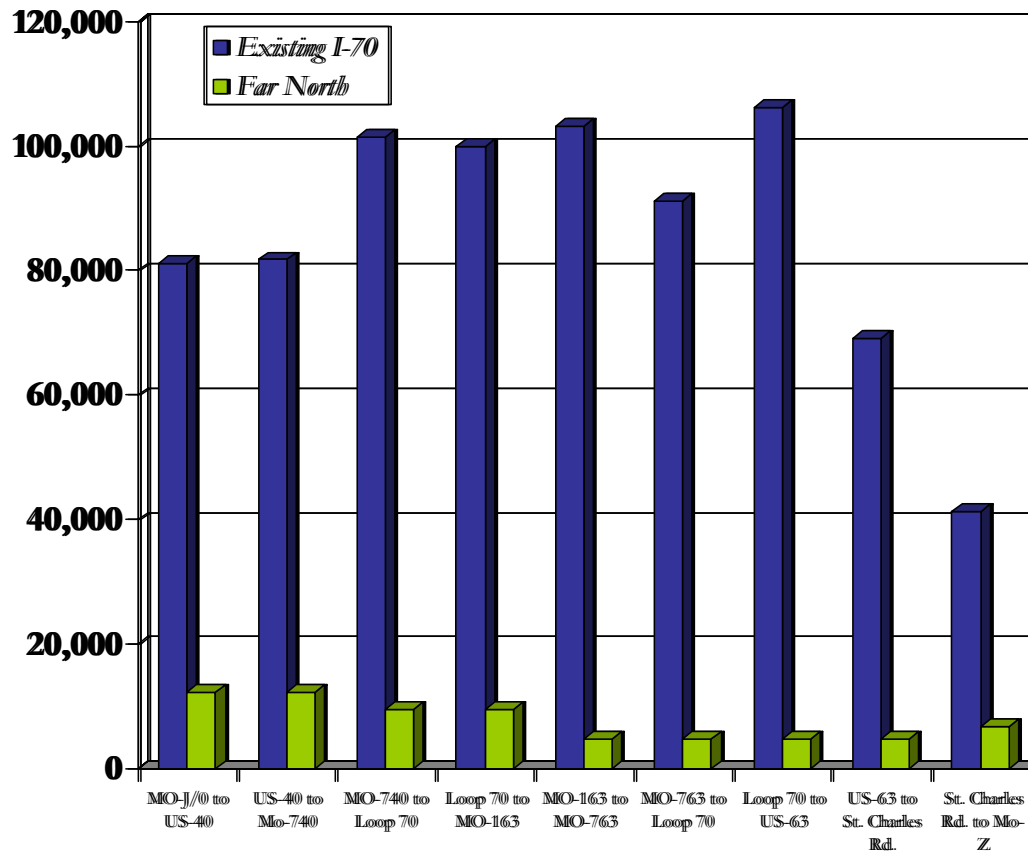


Key Points

- 23,700 vehicles diverted off of existing I-70 (26%).
- 4,100 additional local trips generated.
- On average, 27,800 vehicles will use the near north; 67,900 will use existing I-70.



Far North Alternative (2030)



Key Points

- 5,500 vehicles diverted off existing I-70 (6%).
- 2,300 additional local trips generated.
- On average, 7,800 vehicles will use the far north; 86,100 will use existing I-70.



Wisconsin Case Study

The Economic Impacts of Highway Bypasses on Communities (January 1998)

In 1998, the Wisconsin Department of Transportation commissioned a study to determine the overall economic development implications of bypassing local communities. That study examined 17 communities in Wisconsin with populations ranging from 304 to nearly 30,000.¹ The study employed a series of techniques in evaluating the actual impacts to those communities, including:

- *Pre- and Post-Bypass Data Analysis* – This activity involved collecting population, employment, traffic, and retail trade data in bypassed communities prior to and after the completion of the bypass.
- *Focus Group Interviews* – The study included focus group interviews to provide an opportunity to understand the perceptions of local officials, business owners and the general population.
- *"Old Route" Travel Surveys* – Travel surveys of motorists using the old highway were also conducted to determine whether long-distance "drive-by" traffic were still utilizing the old facility.

The study resulted in four major findings discussed below. Other empirical studies conducted in other states across the Midwest (Missouri, Iowa, and Texas) have similar conclusions. A reference section has been provided at the end of this section that provides a citation for those studies.

Finding No. 1

"There is little evidence that bypasses adversely impact the overall economics of most communities. Smaller communities (<1,000) have a greater potential to be impacted economically by a bypass."

Reasons:

1. Most communities being bypassed have recently experienced significant economic growth before the bypass was constructed, hence the reason for the bypass.

¹ Because the vast majority of impacts related to bypasses are associated with small to mid-sized communities (<30,000), there has not been any empirical information collected evaluating the bypass implications on larger communities the size of Columbia.

2. There was no perceptible change in population, employment and retail trade trends in most communities after the bypass was open.
3. Economic growth generally exceeded trends found in other non-bypassed communities.

Impact to Columbia:

1. Communities as large as Columbia typically are unaffected by a relocated facility. The SIU Team plans to conduct a series of business and patron surveys for businesses along I-70 to assess how much of their business is from long-distance travelers and how much is from the local population base. From that information the study team will assess the likely impact to those businesses, including an assessment of those likely to relocate as well as those that could potentially go out of business.
2. It is not anticipated that many, if any, existing businesses would relocate to an additional highway corridor. Instead, we are expecting a shift in where new growth (retail, service, industrial) would choose to locate. In coordination with the City of Columbia, and through a series of land-use charrettes (workshops), an overall assessment in the amount and location of this possible reallocation of future growth has been conducted.
3. While there may be some reallocation of future growth, it is not expected that the new facility will spur additional economic development from other parts of the state or nation.

Finding No. 2

"Over the long-term, average traffic levels on "old routes" in medium and larger communities are close to pre-bypass levels indicating continued economic activity in those communities, and the opportunity for all kinds of retail trade to flourish, including traffic-dependent businesses."

Reasons:

1. Most businesses in medium to large cities have a high percentage of their patronage from the local population. The existing facility typically provides transportation access to those facilities.
2. General growth in the local population base more than compensates for the loss in traffic resulting from the bypass.
3. The old route remains a key destination for long-distance traffic since it continues to provide needed retail activity (lodging, food, fuel).

Impact to Columbia:

1. Preliminary traffic forecasts indicate that a substantial amount of traffic will remain on existing I-70 with either of the northern alternatives. In fact, in

both cases the amount of traffic remaining far exceeds the amount of traffic using the facility today. Little overall impact to existing businesses along I-70 is expected as a result of the proposed alternatives.

Finding No. 3

"Retail flight" in bypass communities is not apparent, meaning there are very few retail businesses that are newly developed or relocated near bypass facilities.

Reasons:

1. Traffic levels on some bypasses were not sufficient to support many businesses, especially if located away from an existing population base.
2. The cost to provide municipal services to those interchanges was prohibitive for some communities.
3. Some communities made conscious decisions (planning/zoning) to control development near those interchanges.
4. Limited access along interstate type facilities limits the ability to provide adequate access to the businesses.

Impact to Columbia:

1. Based on coordination with the City of Columbia, it was assumed that some retail, office and industrial development could potentially locate in the vicinity of the proposed interchanges for both the near north and far north alternative. Through the charrette process the estimated allocation of the future growth was determined.
2. Little or no "retail flight" was assumed in the planning process primarily because the City still assumes significant increases in business development along I-70, which would more than offset any losses because of relocation.

Finding No. 4

"Communities consider their bypass to be beneficial overall, while understanding that a bypass brings a number of changes for a community and individual businesses that need to be addressed proactively to ensure the most benefits and least adverse impacts."

Reasons:

1. The communities identified better overall traffic flow and congestion relief as major benefits to the community.
2. Many communities noted a reduction in trucks and other large vehicles from constricted intersections in their community.
3. Some communities cited the opportunity to open up new areas for growth.

4. Several bypasses were part of a longer corridor expansion which resulted in better overall accessibility to and from their community.

Conclusion

"The experience ... shows that bypasses do provide traffic and congestion relief, and are perceived as beneficial by the communities they serve. Bypasses have not caused changes to economic trends of communities or drastically reduced retail opportunities, and major unplanned development has not gravitated to bypass routes. Bypasses have created some adverse impacts due to traffic loss in smaller communities, and for a limited number of traffic-dependent businesses. The most important overall conclusion of this study is that a major bypass must be acknowledged for the changes it creates for communities and businesses. How these changes are addressed by (the) communities and individual businesses will determine whether the economy is affected in a positive or negative manner."

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Meeting Summary

IMPROVE I-70 ADVISORY GROUP

5th Meeting

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

March 13, 2003

This is a summary of the fifth meeting of the Improve I-70 Advisory Group. It summarizes key informational and action items from the meeting.

GENERAL

Members Present

Members of the Advisory Group attending the meeting: Bernie Andrews, Jeff Barrow, Bob Bechtold, Susan Clark, Roy Dudark, Skip Elkin, Dave Griggs, Chris Janku, Kory Kaufman, David Mink, Larry Moore, Tom Moran, Justin Perry, Pat Smith, Lorah Steiner and Bob Walters.

Dennis Donald and John Huyler of The Osprey Group facilitated the meeting.

Materials Available at the Meeting

Materials available for discussion at the meeting, in addition to the agenda, included:

- Questions and Responses from MoDOT and the consulting team;
- A primer about frontage roads

Other handouts included:

- the preliminary evaluation of the corridors using operational criteria thresholds established earlier in the process;
- a proposal for amending the Group's operating agreement;
- an organizational chart; and
- information on improvements at the I-70 and U.S. 63 interchange (scheduled for construction during the summer of 2004).

Meeting Goals

This meeting served as a transition from broad corridor screening to the development of narrower alignment alternatives. Much of the Study Team's and Advisory Group's work to

date had involved traffic forecasting and evaluation of the forecasts to inform and guide input about the three broad interstate corridors. The process is now moving to the identification and evaluation of constraints that will help establish preferred and more specific interstate alignments.

Specific goals included:

1. Review questions raised at Meeting 4 and responses;
2. Discuss process for inter-meeting communications;
3. Review assessments of Near North and Existing I-70 as corridor options and preview screening findings;
4. Provide input about potential impacts along Near North and Existing I-70;
5. Clarify next steps in the planning process.

SUMMARY OF ISSUES AND ADVISORY GROUP INPUT

Process Review: Inter-Meeting Communication

As background, immediately following the 4th meeting of the Advisory Group, several members communicated with the facilitators about various logistical and substantive issues. Each of these communications was handled differently. There were some concerns raised about the most desirable process for dealing with inter-meeting communications, one that balances the desire to be responsive with the need to be inclusive and transparent.

At the initial meeting, the Advisory Group adopted a set of Operating Agreements to guide its performance and set forth expectations for all involved. It was recognized that the agreements might need to evolve over time. As a result, several recommended additions or amendments to the agreement were proposed, namely:

1. If questions arise, Advisory Group members are encouraged to contact Project Team members directly between meetings. If questions are of broad interest, any Advisory Group member may send comments or questions to the full Advisory Group email list.
2. If Project Team members think that questions raised between meetings are of broad and immediate interest they may develop answers in writing for the facilitators to share with the full Advisory Group.
3. Time will be reserved at all Advisory Group meetings for the asking and answering of questions of general interest.
4. As a general rule, **ad hoc** meetings scheduled between Advisory Group meetings will be rare. When such meetings are deemed advisable by the Project Team, however, they will be convened in an open and inclusive manner and their results reported to the Advisory Group.
5. Project Team members, as part of their continued I-70 planning responsibilities, will be in contact with interested and knowledgeable individuals and organizations in Columbia on an ongoing basis.

The discussion concluded with the Advisory Group agreeing to add the 5 suggestions above with the addition of the words, “in a written summary” to #4. The facilitators committed to update the Operating Agreements accordingly and send them to the entire mailing list along with this meeting summary.

One question raised after the 4th meeting and discussed during this meeting concerned a rumor that a high-level MoDOT official had stated that MoDOT had a predetermined decision about which corridor would be selected. Ms. Kathy Harvey, MoDOT’s Improve I-70 project manager, told the Group that she had checked with top management at MoDOT and could assure the Group that there is no predetermined solution from MoDOT’s perspective. At the same time, she noted, there are over 2,000 MoDOT employees, people have their opinions, and it is easy to start rumors. She encouraged members who have heard rumors to contact Dennis or John, who will take the necessary steps to find answers. Ms. Harvey said she is committed to seeking clarification and tracking down any potential source when rumors arise.

One of the Group members reinforced the positive deliberations that have taken place through the Advisory Group process to date. She said, “I heard the same rumor at the inception before we started -- it was before our first meeting. But I want to say publicly and I think I speak for everybody else in the Group that, after the first meeting in this process, any notion that I had that there was a preconceived notion of where this was going to go was dispelled. I also want to say, having been involved in a lot of different planning processes over my 15 years with the city, that this process has been very professionally run. It has been very detailed and the communication has been excellent. I do not think there is any sense that there is anything that is preconceived.”

Review of Criteria: Near North and Existing I-70 as Corridor Options

During the second and third Advisory Group meetings the project team set forth several criteria and related thresholds to be applied to the traffic projections to aid in screening the three corridor options. This 5th meeting was the first opportunity to view the traffic forecasts through the lens of these criteria.

Mr. Buddy Desai from CH2M Hill presented the criteria screening information. He indicated that the corridor screening process has taken somewhat longer than expected because the traffic projections have caused the team to evaluate the corridors more thoroughly. The expectation at the beginning of the Tier 2 Study process was that the Near North would be a viable alternative in Columbia. However, the traffic projections, relying on more local input for the model, have made the team question that initial expectation. The traffic modeling demonstrated that, regardless of the Near North configuration, it could not divert much traffic from the existing I-70.

The criteria and thresholds were developed to help determine what impact building the Near North would have on operations along the existing I-70. There were five criteria initially presented to the Group and the analysis shared with the Group at this meeting focused on the three operational characteristics, such as average speed or time to drive along the existing interstate with and without a Near North option.

Conclusions presented included:

- Travel time from one end of the existing I-70 corridor to the other is only minimally impacted by development of a Near North corridor. At most, it was about 15 seconds faster than staying on existing. This is due to the conclusion from the traffic model that the number of vehicles on the existing corridor will stay largely the same regardless of the existence of a Near North corridor.
- Similarly, the average speed for traffic along I-70 is expected to remain roughly constant at about 60 miles per hour regardless of the Near North development options.
- Regardless of the development option for the Near North, travel along the existing I-70 corridor is generally considered acceptable (level of service D or better for all alternatives evaluated).

There was some discussion about possible options that would leave the existing corridor at four lanes thus forcing more traffic to move to either the business loop or a Near North alternative. Mr. Desai explained that four lanes on the existing I-70 is not a reasonable alternative; with four lanes, the existing I-70 cannot handle the traffic that is projected for it. It was also mentioned that the rural portions of the interstate will be built to six lanes and that if Columbia were to remain at four lanes it would become a notable bottle neck for traffic flow. Some wanted clarity about why the Near North could not constitute the continuation of the six lanes with the current alignment remaining at four. Mr. Desai responded that the projections show that even at four lanes the Near North is not at capacity and thus with six lanes would be even more under-utilized. Given a choice, most travelers would opt for the existing corridor as their route. This preference adds considerable demand on the existing corridor and requires expanding it to at least six lanes. With six lanes in place on the existing alignment, only a modest amount of traffic would choose the Near North alternative.

There was some question about whether expanding the existing corridor from six to eight lanes would affect the level of service. The response was that the level of service might improve with additional capacity, but with either six or eight lanes, the existing I-70 would perform at level of service D, which is considered the minimum acceptable level of service. The follow-up question was: How will the team determine whether six or eight lanes are preferable? Mr. Desai indicated that the team will start its analysis assuming a minimum of three lanes in each direction and then seek to balance the need to avoid over-designing the system with the need to ensure there is adequate capacity throughout the Columbia corridor. One option that was mentioned is that certain sections might have eight lanes while the default for the corridor is six.

A short-hand expression of the bottom-line conclusion about the Near North from one member was simply, “you can build it, but they won’t come.” Mr. Desai modified this somewhat and indicated that at least “they” won’t come in any appreciable numbers from the existing I-70.

Another member translated what he was hearing as the bottom-line: “There’s a need presently and certainly that need increases in the future to improve the existing I-70 corridor. And improvements to the existing I-70 corridor will draw traffic away from any [northern] alternative back to I-70.”

Input about Potential Impacts along Near North and Existing I-70

Four groups, three from the Advisory Group and one for the public in attendance, were created to provide input to the consulting team about points of interest and constraints that exist along both the existing corridor and the Near North corridor. The Near North was included in this process because it is premature to completely eliminate it as a possible alternative, although participants were asked to concentrate on the existing corridor. This work was done on a set of maps (aerial photos from January 2000) and then each small group reported its results to the larger Group.

The project team will use these maps to help them identify constraints to future alignments. This consolidated information, along with further analysis, will be shared at the next Advisory Group meeting.

SUMMARY AND NEXT STEPS

The Group received an organizational chart that highlighted the key players in the process from this point forward. As the process now moves toward specifying more definitive alignments, several individuals, such as those examining water quality issues, identifying cultural resources, or addressing socioeconomic impacts, will now play a more prominent role.

A public meeting will be held on April 23rd, at the Recreation Center from 4:00 to 7:00. Additional information about this meeting will be advertised in the weeks ahead. It is expected to be conducted mostly in an open house format augmented by a few brief presentations.

The next meeting of the Advisory Group will reflect the changing focus of the study effort. Candidate topics identified for the meeting include:

- Debrief of the public meeting
- Identification of specific alignment alternatives
- Identification of constraints
- “Final, final” traffic results
- Design considerations
- Input from the statewide enhancement committee
- The corridor screening decision document
- Categories of impacts to be considered

The next Advisory Group meeting is scheduled for Thursday, May 29th. It will be held at the Daniel Boone Regional Library, 100 W. Broadway. An agenda and supporting material will be sent to the Advisory Group a week prior to the meeting.

Upcoming Advisory Group Meeting

Thursday, May 29th

Agenda

IMPROVE I-70 ADVISORY GROUP

Meeting 5
4:00-6:30 p.m.
March 13, 2003

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

Meeting Goals: 1) Review questions raised at Meeting 4 and responses; 2) Discuss process for inter-meeting communications; 3) Review assessments of Near North and Existing I-70 as corridor options and preview screening findings; 4) Provide input about potential impacts along Near North and Existing I-70; 5) Clarify next steps in the planning process.

4:00 Convene Meeting

Dennis Donald and John Huyler, The Osprey Group

4:05 Relevant Updates and Outstanding Questions

Dennis Donald, The Osprey Group

4:15 Process Review: Inter-Meeting Communication

John Huyler, The Osprey Group

4:30 Corridor Screening Findings

Buddy Desai, CH2M Hill

5:00 Identifying Potential Impacts along Near North and Existing I-70 Alignments

Buddy Desai, CH2M Hill

6:00 Reports to Full Group

Advisory Group

6:20 Closing and Next Steps

Dennis Donald and John Huyler, The Osprey Group

6:30 Adjourn

Questions and Answers

Can we incorporate a future interchange west of Stadium into the traffic modeling?

It is possible to incorporate additional interchanges into the modeling forecasts, similar to how we added and subtracted interchanges for the sensitivity runs on the Near North and Far North corridors. However, since we do not need to add interchanges to the existing alignment for any type of sensitivity run, adding this interchange would be based on speculation rather than a documented need and confirmed location, as is the usual practice. It is preferable – and more accurate – to base forecasts on land uses and proposed infrastructure improvements that are already documented in CATSO's long-range plan, or studied and approved by other decision-making authorities such as MoDOT and the Federal Highway Administration.

At this time we are screening corridors to determine which of the three -- Near North, Far North and existing I-70-- to keep and which to eliminate. Having an additional interchange on the existing corridor west of Stadium Boulevard would not have any effect on that decision-making process. An interchange in that area, if added, would not significantly impact the amount of traffic using either of the bypass corridors or the existing corridor. That interchange would impact the volume of traffic going through the existing Stadium interchange, and might change the facility 'type' between Stadium and the new interchange or even the number of lanes needed and the need for frontage roads, but does not play into the corridor-level decision process.

As we move into the next stage of study, we will look at the details of widening the existing corridor. We will evaluate the capacity of all of the existing interchanges and seek a reasonable range of solutions. At that time, if no amount of improvements to the Stadium interchange will accommodate the forecasted traffic, we will look at options that include additional interchanges and adjust the model for these scenarios accordingly. Similarly, if CATSO's long range plan is updated during the course of the Improve I-70 Study, we will make adjustments where possible.

If the CATSO long-range plan is updated to include this possible interchange during the life of this study we will consider its impact as we evaluate alternatives. However, the location of any new interchange must be decided upon by going through an environmental analysis similar to what we are doing for I-70. Additionally, any new interchange proposed on an interstate facility must have an "Access Justification Report" prepared and approved by the FHWA for authority to break access. These items could be taken care of under the Improve I-70 umbrella, but these studies were never intended to do that. Improve I-70 is about taking care of the problems with the mainline and the existing interchanges and is prescriptive enough that if authorized, an interchange could be added to I-70 at any location to fit within the improvement framework. Under normal circumstances, the only time we would bring a new

interchange into the picture would be if there was no other solution to the problem except to build a new one. We are not far enough along in the process to make that assessment.

What is latent demand and induced traffic, and are we able to account for it in this study?

The theory of latent demand, or induced traffic, has been discussed in the transportation planning industry for many years. The theory states that as congestion increases within a transportation system, motorists who would normally make certain trips in uncongested conditions choose not to make those trips in congested conditions. Motorists will choose to make those trips again, however, once there is an improvement to the system that reduces congestion.

The issue of latent demand is a real concern in heavily congested cities across the country. For example, Los Angeles has made significant improvements to its highway network in the last decade. Several of those improvements designed to handle congestion for the next 30 years have already reached their capacity, and additional improvements are now being planned.

The issue of latent demand is less of a concern in communities the size of Columbia. While I-70 in Columbia does have periods of congestion, especially during the morning and evening rush hours, the level of congestion is not considered to be a likely deterrent to making a trip. Instead of canceling certain trips altogether, Columbia motorists will shift the times at which they will make their trips, or choose different routes.

Latent demand is a concern that needs to be considered in any transportation study. The study team believes that assumptions built into the current model allow for enough residual capacity to account for any additional induced trips generated by the proposed improvements.

How does the model account for through trips?

The model defines a through trip as one that enters Columbia on one side and exits Columbia on the other (external-to-external) without making any stops. The model cannot account for long-distance, through trips that make short stops (i.e. for gas or food) within Columbia. The model considers this travel behavior to be separate, local trips (external-to-internal and internal-to-external).

Because of this, the percentage of through trips along I-70 might appear to be somewhat misleading or lower than expected. The actual percentage of through trips would be higher if it were possible to identify the long-distance trips that stop for a short time and then resume on I-70 through Columbia. What this does tell us is that Columbia is a place where I-70 through-travelers like to stop to get food and gas before continuing on their long-distance trips.

Is there any reasonable possibility that the future of existing I-70 could be explored with just four lanes?

No. Four lanes on existing I-70 (two lanes in each direction) will not be able to efficiently handle the projected traffic that will use the corridor in the future. To minimize the impacts of widening I-70 to up to three to four lanes in each direction, the study team will propose design features such as frontage roads and more efficient interchange configurations.

Can signage, ramp types, and speed limits be incorporated in the traffic model to deter traffic from using existing I-70? What are things we could do to move traffic to the Near North corridor?

The traffic model ran several options designed to encourage traffic entering the Columbia area to use the Near North corridor. It found that speed limits on existing I-70 would have to be reduced to 35 mph to attract significant through-traffic on the Near North corridor. The options run through the model assumed through-traffic on I-70 would be required to use a “fly-over” ramp, while traffic traveling on the Near North route would continue as the main movement.

Signage cannot be incorporated into the traffic model.

How will the Near North be handled in the future?

The traffic model results, along with the threshold/criteria analysis of the various sensitivity runs, indicate that the Near North corridor does not divert enough traffic from existing I-70 to significantly relieve congestion on I-70, which is the primary purpose of this effort. However, the Near North corridor clearly attracts local trips traveling within Columbia. MoDOT will provide CATSO with all of the information gathered to date so it can consider how to prioritize this corridor in Columbia's long-range transportation plan.

Can we remove all access to I-70 within Columbia except for U.S. 63 and Stadium along with improvements to parallel routes, like express lanes to Business Loop 70?

While it is not practical to remove all access points from existing I-70 other than at U.S. 63 and Stadium, the study team will investigate opportunities to combine or possibly remove some access points to improve operations along the existing route. As the study progresses, improvements to parallel routes, such as Business Loop 70, will be investigated to further determine their impact on the operation of I-70.

IMPROVE I-70 ADVISORY GROUP
Meeting 5 - March 13, 2003

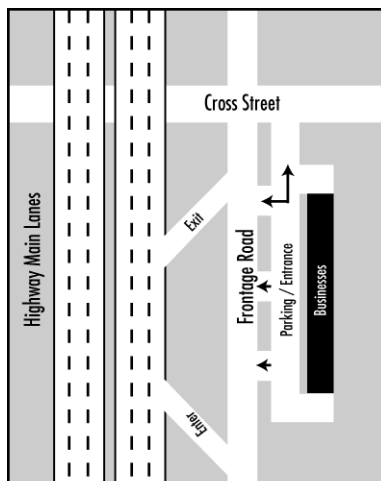
Frontage Road Primer

A critical component of highway design is providing appropriate access to local streets and properties. How and where traffic enters or leaves a highway has a significant impact on safety and traffic flow.

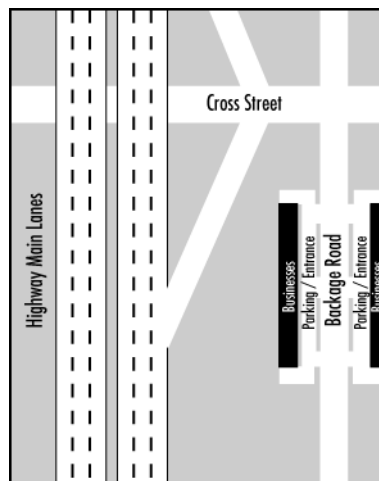
For interstate highways, access to and from the facility is controlled, or permitted only at grade-separated interchanges with overpasses or underpasses. Interchanges often connect with other highways or local street systems. In other locations, particularly in areas with heavy commercial development, as in Columbia, interchanges can also link travelers to frontage roads. **Frontage roads are access roads that parallel the access-controlled highway** (See also backage roads in below graphic).

Frontage roads separate local traffic -- traffic that needs to slow down and turn into local destinations -- from the faster through-traffic on an access-controlled highway. Other conflicting traffic patterns such as lane-weaving also are moved from the higher-speed access-controlled facility to lower-speed frontage roads. The result is increased safety and traffic flow with virtually direct access to local destinations.

The challenge in designing frontage roads, which can be two-way or one-way, is that they must truly separate slowing and turning traffic from the through-traffic on the interstate. If there is not enough "storage" room for traffic exiting and entering the highway, then backups and crashes on both the highway and the frontage road become more likely.



Frontage Roads provide access at the front of a destination, and run between the highway and the destination.



Backage Roads serve the same purpose as frontage roads, except they provide access to the back of the property. The destination is between the highway and the backage road.

Two-way Frontage Roads

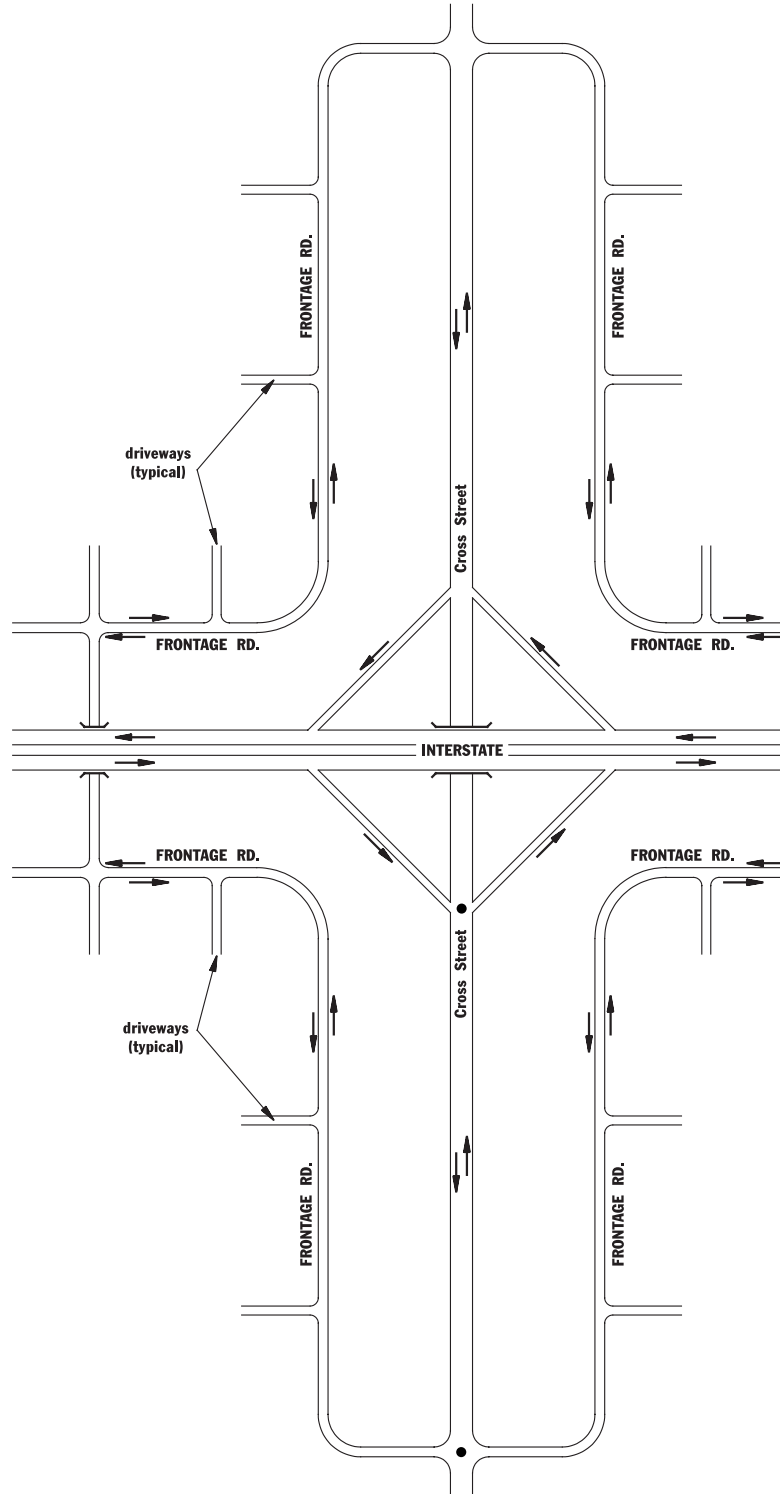


A two-way frontage road (foreground) at an intersection with a cross street in Kansas City. Nearby I-35 runs beneath the cross street's overpass bridge (right). This intersection spacing is too close to the ramps to the interstate, and backups are common.

Two-way frontage roads require much more space than one-way frontage roads in order to prevent backups at intersections and interchange ramps. Current guidelines that help ensure the safe operation of two-way frontage roads include:

- At least a quarter-mile between interchange ramps and frontage-road/cross-street intersections.
- No direct ramps from the highway to/from two-way frontage road.

Two-way Frontage Roads (Continued)

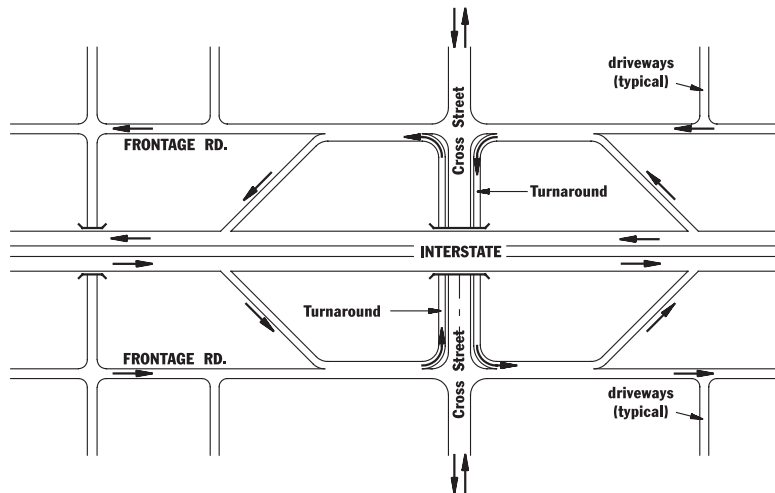


Two-way frontage roads: Intersections of frontage roads and cross streets must be at least a quarter-mile from interchange ramps -- the distance shown between the dots, above.

One-way Frontage Roads

Because one-way frontage roads have fewer "conflict points" at intersections, they are safer, require a smaller footprint and enable more design flexibility. A disadvantage of one-way frontage roads is that motorists have farther to travel when they miss a turn.

A way to help traffic move quickly along one-way frontage roads is to use the Texas Turnaround (See "Turnaround" in graphic below), essentially a U-turn that carries frontage road traffic heading in one direction to the frontage road going in the other direction. Traffic along Texas Turnarounds is continuous -- i.e. there are no stop signs or stoplights.



One-way frontage roads: Ramps to frontage roads can be combined with interchanges.



Motorist's view of a one-way frontage road and direct off-ramp from I-64 near St. Louis.

IMPROVE I-70 ADVISORY GROUP
Recommended Additions to Operating Agreements
March 13, 2003

The goal of the I-70 Advisory Group is to provide useful, timely input to MoDOT and the engineering consultants charged with planning and designing an improved Interstate 70. To be effective, the process should be open, inclusive and transparent without being unduly burdensome.

1. If questions arise, Advisory Group members are encouraged to contact Project Team members directly between meetings. If questions are of broad interest, any Advisory Group member may send comments or questions to the full Advisory Group email list.
2. If Project Team members think that questions raised between meetings are of broad and immediate interest they may develop answers in writing for the facilitators to share with the full Advisory Group.
3. Time will be reserved at all Advisory Group meetings for the asking and answering of questions of general interest.
4. As a general rule, **ad hoc** meetings scheduled between Advisory Group meetings will be rare. When such meetings are deemed advisable by the Project Team, however, they will be convened in an open and inclusive manner and their results reported to the Advisory Group.
5. Project Team members, as part of their planning, design, and impact assessment responsibilities beyond the Advisory Group, will be in contact with many individuals and organizations in Columbia on an ongoing basis.

Improve I-70 Advisory Group

Operating Agreements September 2002

Purpose

The Improve I-70 Advisory Group will focus on providing meaningful input to MoDOT as it plans for the improvement of I-70 in the Columbia area. The Group is one of several mechanisms that MoDOT expects to use to gather public opinion.

Roles

The Advisory Group is composed of people interested in planning the future of I-70 in the Columbia area. Members include people who reside or work in the area as well as individuals who work for affected governments, organizations and agencies. The expectation is that all members will:

- attend all meetings and prepare appropriately (because of the importance of continuity of participation and the relationships which will develop among members, no provision is made for substitutes in the event of an unavoidable absence),
- clearly articulate and reflect the interests they bring to the table,
- listen to other points of view and try to understand the interests of others,
- openly discuss issues with people who hold diverse views,
- actively generate and evaluate options, and
- keep their agency or organization informed of the Group's work.

The Osprey Group will provide facilitation services to the Advisory Group. The facilitators will:

- design and implement discussion procedures,
- design meeting agendas,
- conduct meetings,
- make strategic suggestions as appropriate,
- develop and maintain an email list for distribution of information,
- prepare a meeting summary for distribution to members and other interested individuals after each meeting,
- remain impartial toward the substance of the issues under discussion,
- remain responsible to the full Group and not to individual members or interest groups,
- enforce discussion guidelines accepted by the Group, and
- work with members to resolve process questions, and construct substantive options for the Group's consideration as appropriate.

Representatives of MoDOT, and its engineering consultants, will attend all Advisory Group meetings in order to listen to the discussion and provide timely information to the Group.

Meeting and Discussion Guidelines

The Advisory Group seeks to have productive and useful meetings. To this end, our collective expectations are:

- Meetings will begin promptly and adjourn by the time specified on the agenda.
- Members will arrive on time and stay through the entire meeting.
- The facilitators will call on people to speak during the meetings.
- Only one person will speak at a time.
- Members will focus on substantive and procedural issues rather than personalities.
- Members will avoid side conversations that might be disruptive.
- Members should ensure cell phones are turned off at meetings.
- Members will be brief in their comments and avoid repeating themselves or others.

The facilitators will distribute material, including an agenda, at least five working days in advance of meetings. Members are expected to read the material beforehand and come prepared to contribute to the discussions.

Members of the public are both invited and encouraged to attend all Advisory Group meetings. However, these sessions are intended to focus on the discussions of the Advisory Group and it is not anticipated that there will be opportunities for the broader public to participate during Advisory Group meetings. Other opportunities, however, will be available for the general public to offer their input to MoDOT at other times.

Decision Making

By law, MoDOT has the responsibility of making final decisions about the improvement of I-70 in Missouri. For this reason, MoDOT is not a member of the Group, although its representatives will attend and participate in all meetings. As its name implies, the Group is advisory to MoDOT on matters of general interest to the community as they relate to the planning, design and construction of I-70 improvements.

While the ideal may be for members to reach consensus on a variety of variables, such as the importance of criteria for decision-making, the pros and cons of identified corridors, or even the preferred alignment, which will be under discussion, it is not required. MoDOT will utilize the Advisory Group's input in its entirety in its own decision-making process. This will happen primarily through:

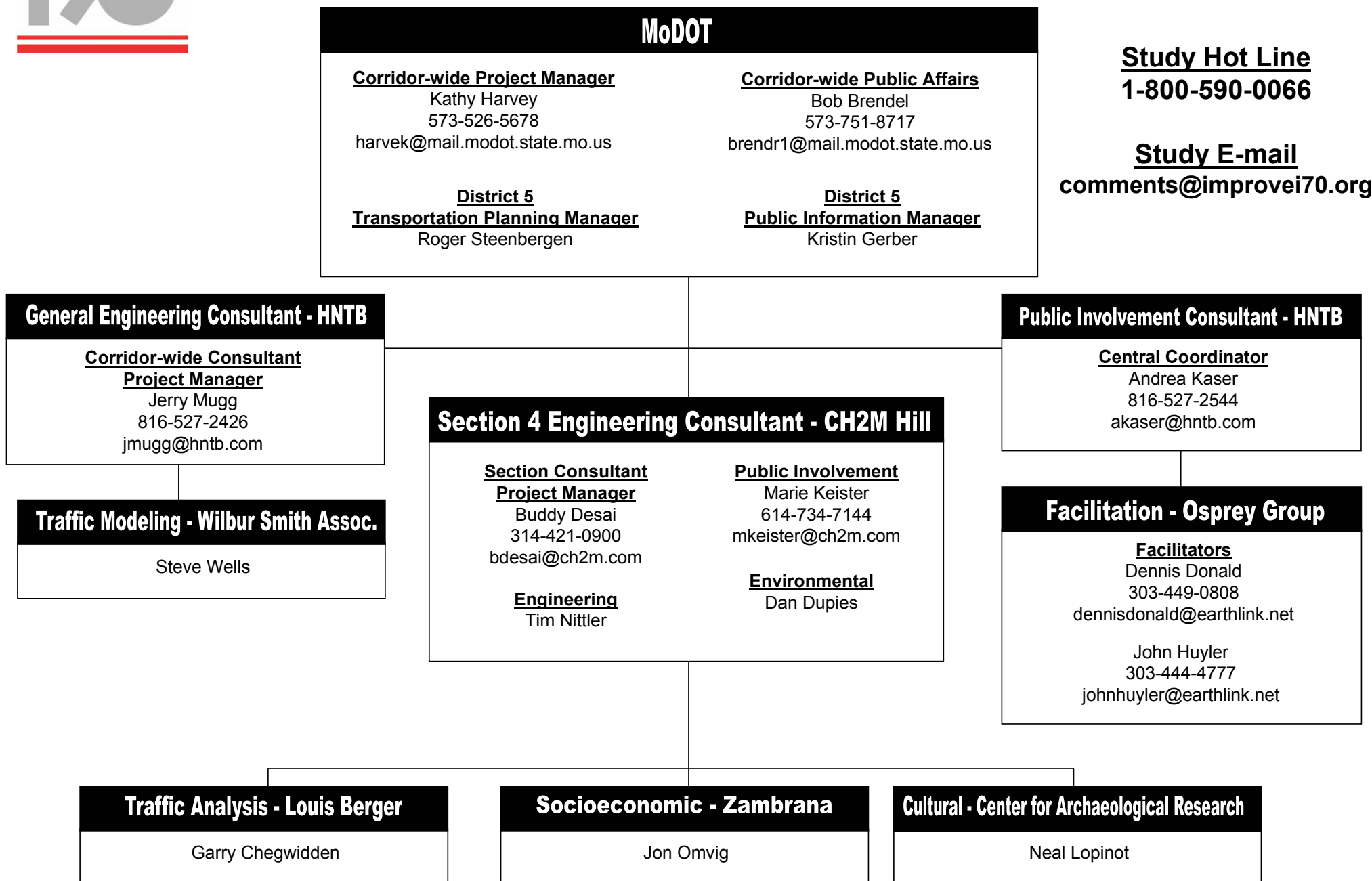
- MoDOT's listening to the Group's discussions and answering timely questions,
- MoDOT's review of the verbatim transcripts of all meetings. A court reporter will be provided to produce transcripts, and,
- The dissemination of a Meeting Summary which will be drafted and distributed by The Osprey Group after each meeting.

These "Operating Agreements" will evolve as needed to continue to meet the needs of the Advisory Group.



I-70 Tier II EIS

Section 4 (Columbia) Organizational Chart



Summary of the Criteria

	Percent Reduction in Travel Time on Existing I-70 Compared to Alternative 7 (minutes)	Average Travel Speed on Existing I-70 (mph)	Percentage Change of Daily Vehicle Miles of Travel in 2030 Operating at LOS D Percent
Alternative 1A Far North Freeway Alternative with 6 lanes on existing I-70	0.0 %	59.96	N/A
Alternative 3A Near North Freeway Alternative with 6 lanes on existing I-70	0.2%	59.98	N/A
Alternative 6A Near North Arterial Alternative with 6 lanes on existing I-70	0.0%	59.95	N/A
Alternative 7 Existing I-70 widened to 6 lanes	0.0%	59.94	N/A
Alternative 8 Existing I-70 widened to 8 lanes	0.4%	60.00	N/A
Alternative 9 Existing I-70 widened to 6 lanes with improvements to Business Loop 70	0.0%	59.94	N/A

Note: Findings are preliminary



MEETING DOCUMENTATION

HNTB
HNTB Architects Engineers Planners
715 Kirk Drive
Kansas City, MO 64105-1310
phone: (816) 472-1201
fax: (816) 472-4060

DATE: April 23, 2003

TIME: 3-4 p.m., 4:30-7:30 p.m.

SUBJECT: Public Officials' Preview,
Public Information Meeting

LOCATION: Columbia Activity and
Recreation Center, 1701 W.
Ash St.

RE: **CHECK APPROPRIATE JOB WITH "X"**

SIU No. 1 - J4I1341D

SIU No. 2 - J4I1341E

SIU No. 3 - J4I1341F

SIU No. 4 - J4I1341G

SIU No. 5 - J4I1341H

SIU No. 6 - J4I1341J

SIU No. 7 - J4I1341K

X

<u>Team Participants</u>	<u>Representing</u>
Kathy Harvey, Bob Brendel, Mark Kross	MoDOT HQ
Roger Schwartz, Roger Steenberg, Kristin Gerber	MoDOT District 5
Buddy Desai, Tim Nittler, Wynne Chow, Dan Dupies, Jim Bednar, Kevin Nichols, Rob Miller	CH2M Hill (Section Engineering Consultant)
Garry Chegwidan, Gary Vandelight, Mike Peters, Scott Bitterman	Louis Berger (Section Engineering Consultant Team)
Ken Bechtel, Andrea Kaser	HNTB (General Engineering Consultant and Public Involvement Consultant)

Introduction

The first public information meeting for the Section 4 Improve I-70 Study was held Wednesday, April 23, 2003, at the Columbia Activity and Recreation Center. The purpose of the meeting was to gather input, provide background on the study process, and share the Study Team's findings to date with regard to the locally focused corridor screening process.

A preview session was offered to public officials from 3-4 p.m., and the public open house was from 4:30-7:30 p.m. The public was notified of the meeting through the corridor-wide newsletter, section-specific postcards and letters, and through media releases and Web site postings.

Attendance

Outside of team members, a total of 155 people are documented as attending the meetings.

cc: participants

Authored by: Andrea Kaser



MEETING DOCUMENTATION

HNTB
HNTB Architects Engineers Planners
715 Kirk Drive
Kansas City, MO 64105-1310
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Nineteen people signed in for the public officials' preview, and 136 people signed in for the public open house.

Stations

Below is the list of stations and a description of their associated displays and content.

Station 1: Why We're Here

Why Improve I-70
Overall Project Process
Section map/corridor/

Station 2: Tiered Study Process

Project History
Corridor-wide map
Breakout Section 4 process with schedule
Decision Making Flow Chart
Advisory Group list and purpose

Station 3: Corridor Screening Process

SIU 4 Map with all three corridors
Purpose of initial corridor screening & criteria
Corridor Traffic Impacts
Corridor Screening Results Matrix

Station 4: Identify Alignment Constraints (Map-Drawing Exercise)

One map for Tier #1 Recommended I-70 alignment
One map for Near North Corridor

Station 5: What's Next

What's Next – Remaining steps in Tier 2 and after
Access Video
Funding Issues

Station 6: Comment Area

Comment forms

Handouts

Decision-making flow chart
Organization chart
Schedule
Corridor screening background and results
Questions and Answers
Advisory Group purpose and contacts
What's next
Comment forms

Presentation

There were two brief presentations by Buddy Desai, who explained the stations and invited



MEETING DOCUMENTATION

HNTB
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attendees to talk to team members. Some members of the audience inquired about the following topics: revised traffic numbers and the traffic modeling process; how cultural resources are considered; the possibility of forcing traffic onto a Near North corridor; building an elevated structure. Mr. Desai answered their questions.

Comments

A total of 81 comments were tallied from the 45 comment forms given to the team at the meeting or sent through U.S. mail. The largest proportion of the comments (23) expressed support for widening and improving existing I-70. The next largest proportion of comments (19) expressed opposition to the Near North concept. A few comments stated that widening existing only would not alleviate future traffic problems, and that a northern corridor would still eventually be necessary. Another few comments suggested improvements to the Route 63 interchange or reduced access.

Agenda

IMPROVE I-70 ADVISORY GROUP

Meeting 6
4:00-6:30 p.m.
May 29, 2003

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

Meeting Goals: 1) Receive information about recent activities; 2) Review changes in the traffic modeling and the revised forecasts; 3) Discuss preliminary information about the environmental, socioeconomic and financial impacts of a Near North and expanded existing I-70 alternative; 4) Input about the viability of the Near North corridor as an option; 5) Clarify next steps in the planning process.

4:00 Convene Meeting

Dennis Donald and John Huyler, The Osprey Group

4:05 Relevant Updates and Outstanding Questions

Bob Brendel, MoDOT

4:15 Traffic Modeling

Jerry Mugg, HNTB, and Paul Hershkowitz, Wilbur Smith Associates

5:00 Preliminary Impact Assessments of Near North and Existing I-70 Corridors

Buddy Desai, CH2M Hill

5:45 Corridor Screening: Viability of the Near North as an Option

6:00 Next Steps in the I-70 Planning Process

Buddy Desai, CH2M Hill

6:20 Closing and Next Steps for the Advisory Group

Dennis Donald and John Huyler, The Osprey Group

6:30 Adjourn

IMPROVE I-70

TRAFFIC FORECASTING PROCESS AND RESULTS

Section 4 – Columbia Area

May 21, 2003

Introduction

Traffic forecasts are an important tool in the highway planning process. In the Columbia area, forecasts are being used as an initial screening tool to determine whether the Far North and Near North conceptual corridors are reasonable alternatives for interstate travel. For a corridor to move through this initial screen and into a phase of more in-depth analysis it must first demonstrate that it will fulfill the Interstate 70 traffic objectives; that is, whether it can draw enough traffic from I-70 to reduce the level of improvements needed on the existing route. This document is intended to explain the traffic modeling and forecasting process undertaken in the Columbia area for the Improve I-70 Study, and to detail how recent changes in forecast traffic occurred.

Summary

The initial screening of the Far North and Near North Corridors relied upon traffic projections for the year 2030. Projections were developed as soon as possible and shared with the Columbia Advisory Group in December 2002 and January and March of this year. A good deal of discussion, input and tentative decisions about the viability of the northern corridor alternatives were based upon these traffic projections. Recent reviews found that the traffic projections were incorrect. During a quality assurance/quality control review, two problems were found in April with the computer model used to develop the traffic forecasts. The problems were due to human error.

Corrections were made to the model and new forecasts were developed. The results showed a significant increase in traffic being drawn to the Near North Corridor. Shortly after discovering the errors, MoDOT and its consultants communicated this situation and these new findings to the Advisory Group, news media and general public. MoDOT believes the model is now producing reasonable forecasts suitable for making planning decisions on the future of I-70 in the Columbia area. The current focus of these decisions is the extent to which the existing I-70 will need to be expanded and the viability of the northern corridor options.

Traffic Modeling: General Information and Background

A traffic model is a computer-assisted tool used to project future traffic behavior in order to plan for future transportation needs. Its results depend on many parameters, assumptions and variables that are set up by professional traffic modelers. Some of the information incorporated into a traffic model computer program includes: the existing and planned roadway network; information on how the network is used and will be used

in the future (locations that generate and attract trips); existing traffic counts and traffic flows; and socio-economic forecasts, including anticipated growth and shifts in development patterns.

Traffic modeling is not an exact science. The possibility for differences in judgment exists in all modeling efforts. However, even recognizing its limitations, a traffic model is the best tool available to evaluate transportation demands and the alternatives to meet them.

In 1999 and 2000, during the I-70 Improvement Study (First Tier), MoDOT's statewide traffic model was used to evaluate a variety of improvement strategies for the I-70 corridor as a whole. It was determined that traffic forecasting for "Improve I-70" (Second Tier) should be based on a more refined modeling effort using existing, local models where available. Forecasting activities for the Improve I-70 Study in Columbia are building on the local model maintained by the Columbia Area Transportation Study Organization. The CATSO model incorporates local traffic counts and specific long-range growth plans.

The Forecasting Process in Columbia

During the last six months, study consultants have been assessing the viability of the Far North and Near North Corridors from a traffic perspective. The statewide traffic consultant worked in close cooperation with CATSO staff to update the city's traffic model* before using it to evaluate the corridors. Those efforts included:

- updates reflecting new Census information,
- an update of long-distance through-trips based on statewide model information,
- a comprehensive land-use working session with city and county planning officials to form a consensus about where growth in the community would occur, and thus where motorists' trips would be distributed,
- the development of a base-year (Year 2000) traffic estimate, and a design-year (Year 2030) traffic forecast.

The model was then used to estimate the potential diversions of traffic from I-70 and the local street network to either the Far North or Near North Corridors. The evaluation process also included active involvement of the Columbia Advisory Group, a diverse group from the Columbia area convened to provide input to MoDOT as study decisions are made. The Group's involvement was intentionally designed to be very open to foster both an understanding of the process being employed and to solicit feedback as information was developed. This openness led to initial traffic numbers being shared publicly as they were developed and before any formal and thorough quality assurance procedures took place.

* The modeling problems that were recently discovered were not due to the city's model, but rather with how the statewide traffic consultant used the model to evaluate the conceptual corridors.

Traffic numbers were shared with the Advisory Group at meetings in December 2002 and January and March of this year as the statewide traffic consultant developed forecasts and refined a number of potential improvement scenarios. While there were some concerns that the amount of traffic projected for the northern corridors seemed too low, the Advisory Group and MoDOT relied upon the statewide traffic consultant's figures as discussions continued and decisions were being made. With input from the Advisory Group, it was determined that the Far North alternative should be eliminated from further consideration. The Near North was held on the side to be considered an alternative should there be "fatal flaws" that would limit the expansion of the existing interstate.

Questioning the Model

As information sharing and model refinement progressed, questions continued to be raised by members of the Advisory Group and by various members of the consultant team. Questions were based on traffic model results that seemed contrary to reasonable expectations – from the standpoint of both local knowledge and professional experience. Specific concerns included:

- Traffic volumes along I-70 east of U.S. 63 were lower than expected, especially compared to the traffic volumes in MoDOT's statewide model.
- Trip distribution percentages on I-70 did not show as much long-distance (external-to-external) "through" traffic as expected.
- Trip diversions to the Near North alternative were lower than projections developed in the First Tier Study (which used the statewide model only).

These questions were investigated to varying degrees, but the problems were not identified or resolved by the statewide traffic consultant until its comprehensive quality assurance review occurred in April. This review was necessary before making a final decision on the viability of the northern alternatives. The statewide traffic consultant invited independent reviewers within its firm and other members of the Improve I-70 team to test the model's results in advance of the public meeting in April.

Defining the Problems

The review of the model resulted in finding two primary problems:

Assigned Travel Times on the Near North and Far North Corridors – Information was entered into the model incorrectly causing the total travel times for the Near North and Far North Corridors to be improperly high. Higher travel times translate into reduced traffic. The errors were primarily related to the interchanges and created artificial time delays as vehicles passed through them. Correcting this problem in the model led to an overall reduction in total travel time for both the Near North and Far North corridors. The times were reduced by minutes, but the reductions had a significant impact on the

traffic projections, and resulted in the Near North travel time being much shorter than original calculations, with a slightly shorter travel time than travel time on existing I-70.

AVERAGE FORECASTED TRAVEL TIMES*		
Near North with Existing I-70		
	Original (minutes)	Revised (minutes)
Existing I-70 (13.7 miles**)	12.7	12.7
Near North Corridor (14.7 miles)	16.0	12.6
Far North with Existing I-70		
	Original (minutes)	Revised (minutes)
Existing I-70 (13.4 miles**)	13.3	12.4
Far North Corridor (17.1 miles)	19.4	14.7

**Average travel time is of traffic in both directions. Initial travel speed on the northern corridors was assumed to be 5 mph faster than on existing. **Distance is measured between the intersections of the bypasses and existing I-70; the termini of the Near North and Far North corridors are not at identical locations.*

Traffic Inconsistencies on the Eastern Side of Columbia – A computational error resulted in low volumes of traffic entering and exiting Columbia from the east. Incorrect data were used to project the number of trips from the year 2000 to the year 2030, which resulted in forecast volumes that were inconsistent with the statewide model. The error was corrected and the data were re-calculated to be more consistent with the forecasted 2030 traffic volumes produced by the statewide model, resulting in significantly higher volumes on I-70 east of U.S. 63. Additional recalculations were performed to ensure that this problem did not exist elsewhere in the model. The corrections resulted in the number of eastern trips entering and exiting the model from I-70 increasing from 38,000 per day to 75,000 per day for the northern bypass options. Trips entering and exiting the model from I-70 east for the no-build/baseline alternative increased from 38,000 per day to 68,000 per day.

Resolving the Problems / Their Impact

Making the necessary adjustments to account for the two problems resulted in relatively minor changes in the overall traffic distributions citywide, but it did create significant changes in the Near North's ability to divert traffic from both I-70 and the adjacent arterial roadway network. In summary, the adjustments produced the following results:

No-Build/Baseline Alternative – The model adjustments resulted in relatively minor changes in volumes on the majority of roads within the CATSO region in the no-build/baseline alternative. West of U.S. 63, year 2030 traffic volumes on I-70 remained relatively constant with earlier projections. East of U.S. 63, I-70 had noticeable increases in traffic. Just east of U.S. 63 the traffic projections increased from 70,000 vehicles per day in 2030 to 87,000 vehicles per day. Further east, near Route Z, the traffic projections increased from 42,000 vehicles per day to 68,000 vehicles per day. The revised forecasted traffic more closely matches the numbers being produced by the statewide model.

Widen I-70 Alternatives – The model adjustments resulted in relatively minor overall volume changes on roads with the alternatives for widening I-70. West of U.S. 63, year 2030 traffic volumes on I-70 remained relatively constant with earlier projections. As with the baseline alternative, however, the widening scenarios also had noticeable increases in traffic east of U.S. 63. Here, projections for the 6-lane scenario increased from 71,000 vehicles per day to 89,000 per day. Further east, this scenario also went from an original projection of 42,000 per day to 68,000 per day. The eight-lane scenario had similar increases. These revised forecasts also more closely match the numbers being produced by the statewide model.

Near North Alternative – The combination of increased projected total trips on the eastern side of Columbia and reduced travel times through the Near North Corridor in the model produced a substantial increase in traffic that would use the Near North Corridor. While more detailed systems analysis is necessary, the preliminary assessment is that even with a Near North corridor, a minimum of six lanes along existing I-70 would still be required to handle the existing I-70's future traffic volumes.

Far North Alternative – The modifications also resulted in traffic projection increases along the Far North corridor. However, because the total distance and travel time through this corridor is substantially longer than through existing I-70 the majority of the increase is attributable to diversions from the local arterial street network and not from increased diversions from I-70. The conclusion about the viability of the Far North continues to be the same. The Far North cannot divert enough traffic from existing I-70 to reduce the level of improvements that would still be needed along the existing route.

Results of the Corrected Traffic Modeling

- The existing I-70 will require expanded capacity with a minimum of six lanes needed.
- The Far North Corridor has been eliminated from consideration.
- The Near North Corridor cannot be eliminated based on traffic projections alone and will be carried forward to the next level of screening. The screening will include an evaluation of the corridor's social, environmental and financial impacts.

Future Steps

What was learned from this situation? The principal lesson learned is that quality assurance should be continual and not reserved for key decision milestones only. A thorough and formal quality assurance process will be integrated into the evaluation process on a more continual basis. Specifically this includes:

- Building in additional time into the evaluation process to incorporate quality assurance reviews prior to publicly releasing results.
- Maintaining the existing comprehensive quality assurance review prior to each major milestone.

- Emphasizing that information is preliminary and subject to change when situations call for such information to be released before comprehensive pre-milestone review.
- Continuing the transparent and cooperative process with the Columbia Advisory Group – sharing information as is developed and seeking constructive dialogue.

All revised traffic numbers will be shared with the Advisory Group, news media and general public at the next Group meeting on May 29 at the Columbia Activity and Recreation Center at 4 p.m. Members of the study team, including the statewide traffic consultant, will be present to answer questions and address concerns.

Later in the study process, additional traffic evaluation will be conducted by the section engineering consultant as specific location alternatives within a corridor are developed. The study team expects that traffic numbers could be further refined as conditions in the Columbia continue to change over time.

Conclusion

The consultant team regrets the errors in the traffic model. Changes to the model and its results were due to needed corrections identified by a comprehensive quality assurance review; they were not due to any political pressure or outside interests of any kind. Despite the apparent setback, the Improve I-70 Study is still moving forward on schedule. The team continues its pledge to work with the Advisory Group and people of Columbia in developing the best transportation improvement for the area. The team will do that by maintaining an open process, providing the best information on which to form opinions, and ensuring that information presented is as accurate as possible recognizing the need for timely input and decision-making.

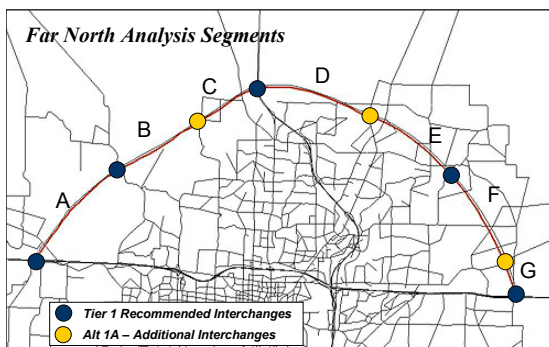
Traffic Forecasting: Revised Sensitivity Analysis Results

This handout includes the revised numbers based on the corrected traffic forecasting model. The original results were in a similar handout from Meeting 4, Jan. 30, 2003.

Far North Sensitivity Alternatives

Three sensitivity alternatives were evaluated along the Far North Corridor. The sensitivity runs were intended to quantify the impact of either adding additional interchanges or reducing the number of interchanges along a proposed alignment. Based on the preliminary traffic results, all three sensitivity runs also provided additional capacity to existing I-70.

- **Far North Tier 1 Alternative** – This is an alternative developed in the Tier 1 Study and evaluated using the current model. It is a four-lane interstate type facility within the Far North Corridor. Interchanges were located at Route E, U.S. 63, Route PP and at either end where it would tie back into existing I-70. No improvements were incorporated along the existing I-70 corridor.
- **Alternative 1A** – Additional interchanges along a proposed Far North alignment, as well as the likely improvements that would be necessary along existing I-70 through Columbia. New interchanges were added at Creasy Springs Road, Oakland Church Road, Route B and Route Z. Additional capacity was added to existing I-70 by adding one additional lane in each direction, making it a six-lane facility.
- **Alternative 1B** – The same interchange configuration as Alternative 1A, with additional capacity along existing I-70. Existing I-70 was assumed to be an eight-lane facility.
- **Alternative 2** – Fewer interchanges along the proposed Far North alternative, with interchanges located at Route 63, Route B and Route PP. Six lanes along existing I-70 were also assumed.



Revised Results

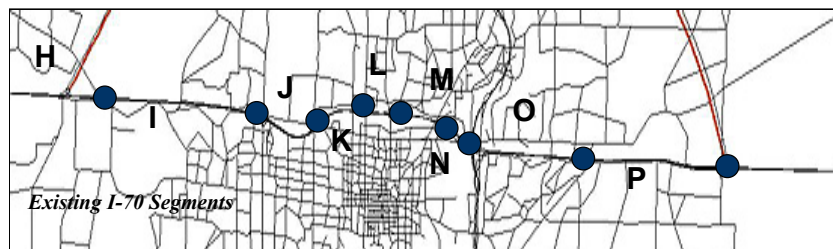
Alternative	Average Daily Traffic Per Segment (2030)							Segment Average	Percent Change
	A	B	C	D	E	F	G		
Tier 1 Alt.	10,040	8,760	8,760	2,780	2,780	7,760	7,760	6,949	
1A	10,680	10,130	11,050	16,170	5,320	8,320	13,220	10,699	154.0%
1B	10,680	10,130	11,040	16,260	5,320	8,330	13,250	10,716	154.2%
2	8,470	8,470	8,470	15,920	5,140	8,080	8,080	8,947	128.8%

Original Results

Alternative	Average Daily Traffic Per Segment (2030)							Segment Average	Percent Change
	A	B	C	D	E	F	G		
Tier 1	12,390	9,530	9,530	4,880	4,880	6,800	6,800	7,830	
1A	10,430	8,230	6,520	7,560	1,340	4,040	5,780	6,270	-19.9%
1B	10,420	8,220	6,520	7,560	1,330	4,050	5,780	6,270	-19.9%
2	5,550	5,550	5,550	7,140	1,150	3,130	3,130	4,460	-43.0%

Traffic Changes along Existing I-70

The second question to be addressed is how traffic along existing I-70 will be impacted by each of the proposed alternatives. Again, existing I-70 was divided into segments – nine, labeled H through P, for evaluation purposes.



Revised Results

Alternative	Average Daily Traffic Per Segment (2030)									Segment Average	Percent Change
	H	I	J	K	L	M	N	O	P		
Tier 1 Alt.	83,750	83,830	103,410	101,880	103,400	92,460	112,690	89,480	72,200	93,678	
1A	84,760	84,750	103,610	101,670	106,670	96,490	115,930	90,760	73,110	95,306	101.7%
1B	84,760	84,800	104,380	101,860	107,060	96,830	116,710	91,450	73,140	95,666	102.1%
2	85,960	84,860	104,050	102,440	107,710	97,180	116,970	91,630	72,210	95,890	102.4%

Original Results

Alternative	Average Daily Traffic Per Segment (2030)									Segment Average	Percent Change
	H	I	J	K	L	M	N	O	P		
Tier 1	81,230	81,800	101,510	99,860	103,130	91,170	106,270	69,120	41,280	86,150	
1A	82,620	83,640	104,890	103,600	107,140	94,010	109,500	70,430	41,790	88,620	2.9%
1B	82,620	83,670	105,210	103,720	107,420	94,370	109,740	70,510	41,790	88,780	3.1%
2	85,930	86,420	106,530	105,210	108,710	94,860	110,180	70,620	41,720	90,020	4.5%

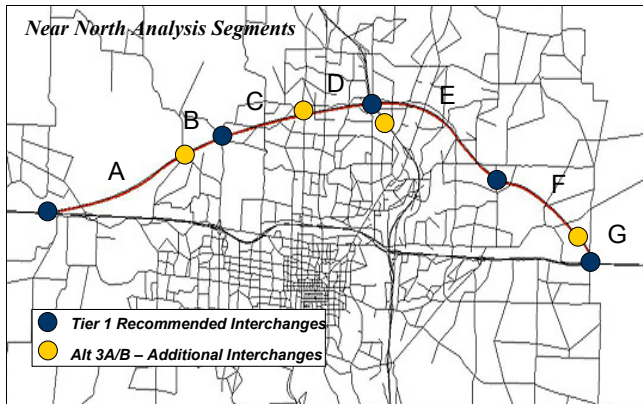
Near North Sensitivity Alternatives

Seven sensitivity alternatives were evaluated along the Near North Corridor. Similar to the Far North, the sensitivity analysis evaluated adding additional interchanges, reducing the number of interchanges, and adding capacity to existing I-70. Additional sensitivity runs included evaluating a northwestern-only leg of the new alignment between I-70 west of Columbia ending at Route 63 north of Columbia; as well as a new alignment as a principle arterial instead of a freeway type facility.

- **Near North Tier 1 Alternative** - This is an alternative developed in the Tier 1 Study and evaluated using the current model. It included a new Near North alignment built to freeway facility standards with interchanges at either end with I-70, Blackfoot Road, U.S. 63, and Route PP. The existing I-70 alignment was modeled with four basic lanes.
- **Alternative 3A** - Included the Near North Tier 1 freeway-standard alternative with interchanges at Route E, Creasy Springs Road, U.S. 63, Route PP, Route Z, and either end with I-70. In addition, an interchange located at U.S. 63 and Brown School Road was added. The existing I-70 alignment was modeled with six lanes through Columbia.
- **Alternative 3B** - Differs from 3A in that the existing I-70 alignment through Columbia was modeled with eight lanes rather than six.
- **Alternative 4** - Modeled with the Near North Tier 1 Alternative, but with fewer interchanges than Alternatives 3A/B. Interchanges were located at either end with I-70, Route E, U.S. 63, and Route PP. The existing I-70 route through Columbia was modeled with six lanes.
- **Alternative 5** - Modeled with the western half of the Near North Tier 1 Alternative, beginning at I-70 near the existing U.S. 40/I-70 interchange and terminating at U.S. 63. Interchanges at I-70, Route E, and U.S. 63 were modeled. The existing I-70 alignment through Columbia was modeled with six lanes.
- **Alternative 6A** - Used the same Tier 1 Near North Alternative modeled as a primary arterial rather than a freeway facility. At-grade intersections were added with every crossroad with a functional classification of collector or higher. Grade-separated interchanges were provided at both I-70 locations and U.S. 63. The existing I-70 alignment was modeled with six lanes through Columbia.
- **Alternative 6B** - Same as Alternative 6A, with the exception that the existing I-70 alignment through Columbia was modeled with eight lanes rather than six.

Traffic Changes along New Near North Alignment

The CATSO traffic model was used to forecast the number of average daily vehicles that would likely use a new Near North alignment in the year 2030. The results of that modeling exercise are presented in the table below.



Revised Results

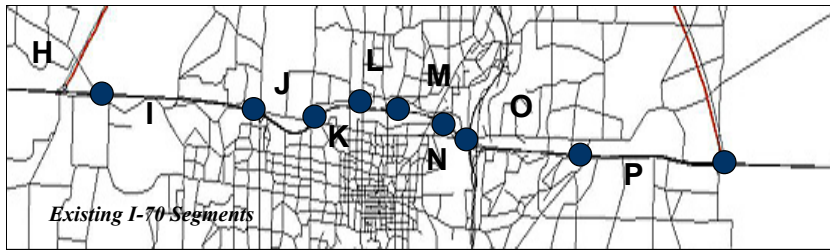
Alternative	Average Daily Traffic Per Segment (2030)							Segment Average	Percent Change
	A	B	C	D	E	F	G		
Tier 1 Alt.	29,890	29,890	30,350	30,350	22,770	29,240	29,240	28,819	
3A	32,930	47,950	47,950	60,370	27,880	31,920	29,480	39,783	138.0%
3B	23,090	39,060	39,060	53,790	21,110	25,170	22,740	32,003	111.0%
4	26,540	26,540	30,780	30,780	25,220	29,750	29,750	28,480	98.8%
5	11,520	15,170	15,170	15,170	--	--	--	14,258	49.5%
6A	1,430	20,710	13,860	41,320	11,370	8,330	12,060	15,583	54.1%
6B	1,230	20,630	13,780	41,210	11,350	8,310	12,040	15,507	53.8%

Original Results

Alternative	Average Daily Traffic Per Segment (2030)							Segment Average	Percent Change
	A	B	C	D	E	F	G		
Tier 1	31,350	31,350	31,450	31,450	20,990	19,890	19,890	26,620	
3A	12,480	12,730	12,730	16,020	6,940	6,910	8,500	10,900	-59.1%
3B	12,360	12,600	12,600	15,880	6,900	6,870	8,470	10,810	-59.4%
4	10,130	7,720	7,710	7,710	6,130	3,800	3,800	6,710	-74.8%
5	10,580	8,030	8,030	8,030	-	-	-	8,670	-72.4%
6A	1,990	15,800	2,850	36,360	13,080	2,530	11,920	12,080	-54.6%
6B	1,990	15,780	2,830	36,330	13,050	2,530	11,980	12,070	-54.7%

Traffic Changes along Existing I-70

The CATSO traffic model was also used to forecast the changes in daily volumes along the existing I-70 alignment through Columbia in 2030. The table below summarizes the year 2030 traffic forecast along existing I-70 for each sensitivity run.



Revised Results

Alternative	Average Daily Traffic Per Segment (2030)									Segment Average	Percent Change
	H	I	J	K	L	M	N	O	P		
Tier 1 Alt.	61,920	61,900	80,460	78,420	84,810	78,650	97,760	69,200	51,580	73,856	
3A	60,220	60,250	77,660	74,850	79,960	72,020	91,690	67,820	49,800	70,474	95.4%
3B	71,080	69,440	85,900	83,950	88,820	80,380	100,090	74,410	56,590	78,962	106.9%
4	66,470	66,000	84,740	82,720	87,930	78,650	97,970	70,090	51,240	76,201	103.2%
5	81,390	81,010	99,840	97,860	103,340	95,250	114,990	92,440	74,660	93,420	126.5%
6A	87,200	90,810	109,450	106,910	111,270	97,460	117,080	91,230	74,070	98,387	133.2%
6B	87,330	91,030	109,630	107,440	112,020	97,960	117,630	91,790	74,090	98,769	133.7%

Original Results

Alternative	Average Daily Traffic Per Segment (2030)									Segment Average	Percent Change
	H	I	J	K	L	M	N	O	P		
Tier 1	62,090	61,040	81,740	79,580	84,070	76,230	91,450	51,580	23,160	67,882	
3A	80,000	79,870	101,730	99,400	103,690	91,840	107,320	66,770	37,820	85,380	25.8%
3B	80,110	80,070	102,060	99,730	104,090	92,190	107,750	66,990	37,860	85,650	26.2%
4	81,230	82,530	105,570	103,200	106,930	93,220	108,690	67,420	38,170	87,440	28.8%
5	80,670	82,070	104,940	102,600	106,160	93,650	109,160	71,300	41,560	88,010	29.7%
6A	86,510	90,140	110,800	108,180	109,920	94,410	109,470	73,560	46,290	92,140	35.7%
6B	86,510	90,250	110,730	107,490	110,370	94,730	109,980	73,680	46,350	92,230	35.9%

Existing I-70 Sensitivity Alternatives

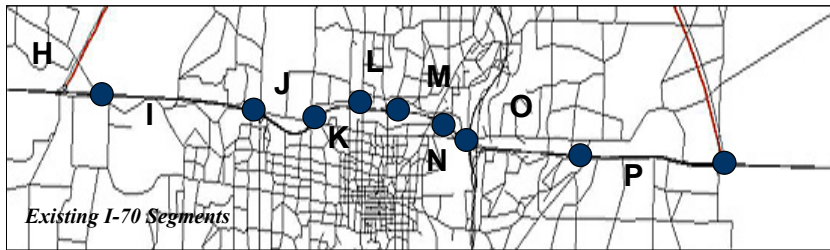
Three sensitivity alternatives were evaluated for the existing I-70 alignment. The sensitivity runs were intended to quantify the impact of adding additional lanes to the existing I-70 alignment and making improvements to the I-70 Business Loop through the City of Columbia.

- **Tier 1 Alternative/Alternative 7** – This is an alternative developed in the Tier 1 Study and evaluated using the current model. The Tier 1 Alternative and Alternative 7 are identical alternatives, and were separated for modeling purposes. The Tier 1 Alternative added two additional lanes to I-70, raising the total four to six lanes. No additional interchanges were added to I-70.
- **Alternative 8** – The second existing I-70 alternative increased the number of lanes from six to eight to provide additional capacity along existing I-70.

- **Alternative 9** – Modeled with improvements to Business Loop 70 through Columbia in an attempt draw vehicles off the parallel interstate facility. For this model run, Business Loop 70 was widened to six lanes with a new arterial-to-arterial interchange with Route 163. Route PP was also extended to connect with the Business Loop. The existing I-70 freeway facility maintained six travel lanes.

Traffic Changes along existing I-70

The CATSO traffic model forecasted the number of average daily vehicles that would likely use the existing alignment in the year 2030, depending on the lane configuration. The results of that modeling exercise are presented in the table below.



Revised Results

Alternative	Average Daily Traffic Per Segment (2030)									Segment Average	Percent Change
	H	I	J	K	L	M	N	O	P		
Tier 1 Alt.	89,580	91,640	111,570	109,670	112,890	99,780	117,960	89,490	68,410	98,999	
No-Build	89,580	91,350	109,210	108,010	110,730	97,150	114,850	86,930	68,290	97,344	-1.7%
7	89,580	91,640	111,570	109,670	112,890	99,780	117,960	89,490	68,410	98,999	0.0%
8	89,580	91,680	111,830	110,370	112,290	97,410	118,790	90,620	68,430	99,000	0.0%
9	89,580	91,660	111,840	111,120	112,670	95,220	121,160	90,550	68,470	99,141	0.1%

Original Results

Alternative	Average Daily Traffic Per Segment (2030)									Segment Average	Percent Change
	H	I	J	K	L	M	N	O	P		
Tier 1	89,570	91,520	110,740	110,100	112,620	97,320	112,260	71,270	42,050	93,050	
7	89,570	91,520	110,740	110,100	112,620	97,320	112,260	71,270	42,050	93,050	0.0%
8	89,570	91,550	111,200	110,150	112,870	96,300	113,850	71,700	42,050	93,250	0.2%
9	89,570	91,520	111,400	111,800	112,840	94,330	114,820	71,840	42,100	93,360	0.3%

IMPROVE I-70 ADVISORY GROUP
Meeting 6 - May 29, 2003

The table below represents the broad range of impacts for each corridor alternative still being considered for the Improve I-70 study through Columbia. The impacts are based on information the study team has gathered to date. The "Build in Existing I-70 Corridor Only" option assumes constructing two to four additional lanes along existing I-70. The "Build Near North and Required Improvements to Existing I-70" option assumes a representative alignment of approximately 500 feet wide in the Near North corridor, along with constructing two additional lanes along existing I-70.

I-70 Columbia Corridor Screening
Preliminary Engineering & Environmental Findings

Criteria	Measure	Build in Existing I-70 Corridor Only	Build Near North and Required Improvements to Existing I-70
<i>Engineering</i>			
Reconstructed freeway lanes	lane-miles	75	75
New freeway lanes	lane-miles	45	105
Reconstructed standard interchanges ¹	#	8	8
New standard interchanges	#	0	5 ²
New high capacity interchanges	#	2 ³	4 ⁴
Replaced structures ⁵	#	9	9
New structures ⁶	#	0	10
<i>Environmental Impacts</i>			
Total Right of Way	acres	450	1,950
Parks	acres	10	10
Wetlands	acres	10	30
Floodplains	acres	70	250
Woodlands	acres	70	380
Agricultural	acres	120	1,110
Stream Crossings	#	14	35
Threatened & Endangered Species	#	0	0
Historic/Archaeological Resources	#	18	23
Hazardous Waste Sites	#	0	0
<i>Socio-Economic</i>			
Residential Displacements	#	175	725
Business Displacements	#	110	100
<i>Approximate Cost (Millions \$)</i>	2003 \$	\$375	\$650

Notes:

¹ Located at Route J/O, Route 740, BL 70W, Route 163, Route 763, BL 70E, St. Charles Road, and Route Z

² Located at Route E, Creasey Springs, Route 763, Route PP, and St. Charles Road

³ Located at US 40 and US 63

⁴ Located on the NN at the Western Terminus, US 63, the Eastern Terminus AND on existing I-70 at US 63

⁵ Does not include structures associated with interchanges or outer (frontage) roads

⁶ Does not include new structures required for outer (frontage) roads



Meeting Summary

IMPROVE I-70 ADVISORY GROUP

7th Meeting

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

September 18, 2003

This is a summary of the key informational and action items from the seventh meeting of the Improve I-70 Advisory Group.

GENERAL

Members Present

Members of the Advisory Group attending the meeting: Craig Adams, Bernie Andrews, Ed Baker, Bob Bechtold, Elaine Blodgett, Susan Clark, Skip Elkin, Dave Griggs, Chris Janku, Kory Kaufman, David Mink, Bud Moulder and Bob Walters.

Dennis Donald and John Huyler of The Osprey Group facilitated the meeting.

Materials Available at the Meeting

Materials, available for discussion at the meeting included:

- ◆ A summary of comments provided at the public workshop held on August 21st
- ◆ An evaluation matrix about alternative widening concepts for I-70
- ◆ The schedule for the remainder of the study

Meeting Goals

The overall goal of this meeting was to understand and inform the process for screening and selecting the preferred I-70 widening alternative.

Specific goals were: 1) Review project goals, challenges and constraints; 2) Define how various alternatives will be developed and evaluated; 3) Examine five widening concepts presented at the public meeting with their advantages and disadvantages; 4) Identify emerging alternatives and provide illustrative example of one alternative and how it performs in an initial screening; 5) Clarify next steps in the planning process.

Preliminary Items

After the Group agreed to the agenda, Bob Brendel described the public workshop held on August 21st. He reported that about 120 people attended. No additional questions or comments were offered.

Next on the agenda was consideration of the adequacy of the composition of the Advisory Group. It was agreed that Roy Dudark will step down from formal membership since he will be working in a hands-on capacity with the Project Team to bring the City's and CATSO's concerns and plans into the everyday planning. It was further agreed that Osprey would contact the City Manager with an invitation for a possible replacement for Roy to represent the City.

Because Kory Kaufman has moved from the Parkade Neighborhood, it was agreed that Craig Adams, a resident of Parkade for 11 years, would be invited to join the Advisory Group as a representative of that neighborhood. Craig was invited to the table and participated in the remainder of the meeting. At the same time, the Group agreed that Kory, given his commitment to the process, should continue to serve on the Group as a Boone County resident.

Finally, Roy Dudark described the discussions that have taken place about a possible new interchange west of Stadium. CATSO, the Columbia City Council and the Planning and Zoning Commission have considered various alternatives and there is currently a coordinated effort under way in which the Improve I-70 Study is considering the entire stretch from Stadium to Midway and the various existing and possible connecting routes and interchanges.

SUMMARY OF ISSUES AND ADVISORY GROUP INPUT

Project Goals and Context: Approach to Evaluating Alternatives

Buddy Desai of CH2M Hill began the presentation on alternatives by stressing that traffic operation issues constitute the core of the purpose and need for the widening of I-70. Buddy reiterated the five widening concepts that are under consideration and noted that as the number of concepts or alternatives is narrowed the amount of information that will be gathered and reviewed about each increases.

Rob Miller, the Lead Environmental Planner for CH2M Hill, then continued the presentation. He summarized the essential mandate of the National Environmental Protection Act (NEPA) and spoke about the capabilities of the Geographic Information System (GIS) that the Project Team has at its disposal to evaluate resources and potential impacts. When considering impacts Rob said that the attempt is first to avoid, second to minimize and third to mitigate impacts. He then described categories of the most important information (e.g., environmental, cultural, socioeconomic, historic) that can be shown with the GIS.

The facilitated discussion that began near the end of Rob Miller's presentation started with the question of who determines whether a given impact is positive, neutral or negative and what the role of the Advisory Group is in that determination? The response was that this meeting was designed to expose the Group to the tools that will be used (the Evaluation Matrix being

one) and that as more information becomes available the Advisory Group will be asked for as much comment, feedback and input as possible.

A concern that seemed to be widely shared within the Advisory Group was about construction impacts. How would the analysis of near-term construction impacts be done and when would it be completed? Rob pointed out that the Project Team was about to initiate a survey of area businesses. Within the next month business owners and operators will be contacted to begin the process of gathering information that could be used to avoid or minimize negative impacts during construction. It was pointed out that in all cases access will be maintained to all businesses during construction periods. The Advisory Group was particularly interested in providing input about impacts to area businesses and residents.

Another theme that the Advisory Group is concerned about has to do with the distinctions between positive, neutral and negative in the evaluation matrix. For example, is an impact ranked as negative if it affects 20 properties but not negative if it affects only one? Mr. Desai pointed out that the assembling of information is an example of trying to be able to “see the forest through the trees” by being able to evaluate enough factors to be able to understand tradeoffs among alternatives. As the study proceeds, the Advisory Group wants to understand the criteria and assumptions that are being used so that it can provide informed input into MoDOT’s decision making.

The next question concerned the issue of the taking of property for construction and widening purposes. If construction plans call for encroachment on only a portion of a property is there flexibility? Kathy Harvey from MoDOT responded that this is a very complicated issue and that the Department has very specific guidelines. Essentially, MoDOT has considerable flexibility in its ability to negotiate with a property owner around how much property is needed for construction purposes. But if the negotiations fail and it becomes necessary to use condemnation proceedings then MoDOT can only condemn and make use of the precise amount of property needed for the project, not the entire parcel. It was clear from the discussion -- introduced by Advisory Group questions -- that this sensitive issue needs to be explained more fully at a subsequent meeting.

Five Widening Concepts

Buddy Desai began his presentation by explaining that most of the material he would cover is available on line at www.improveI70.org. Buddy began by emphasizing that all of the widening concepts involve 3 lanes of traffic in each direction (6 lanes total) with 4 lanes in each direction (8 lanes total) in the central parts of the Columbia corridor. The most important differences between the five concepts involve facilities to complement the widening itself. Buddy then described the basic differences between: Basic Widening, One-Way Frontage Roads, Two-Way Frontage Roads, Collector/Distributor and Stacked Section. He pointed out the fundamental advantages and disadvantages of each concept and cited examples of where the concept had been constructed that people might recognize.

When Buddy finished his presentation he answered questions about how “Texas Turnarounds” and bridges function and whether or not frontage roads can vary in their distance from the Interstate. The answer to the latter question was, “yes.”

Several questions were then asked about the topic of right-of-way. The impact on right-of-way is mostly a function of interchange design and how traffic on the interchanges gets to and from the Interstate. Thus ramp placement is what most significantly affects the right-of-way needed through Columbia. Buddy emphasized that different widening concepts or hybrid combinations are likely to be employed in specific areas in response to traffic needs and the surroundings.

Before turning to the next agenda item Buddy commented, as promised, on Stadium, “We are treating the Stadium interchange situation the same way we would treat any other interchange situation in that, first and foremost, we will work at developing alternatives that satisfy traffic ... at the existing interchange location, and if it is determined by the Team that we just cannot make it work at the existing location, then and only then will we move forward to looking at a potential complementing interchange.”

Alternatives Emerging from Widening Concepts

Kevin Nichols of CH2M Hill drew participants’ attention to various maps that he projected, beginning at the western edge of the Columbia corridor to give the Group an idea of how one approach might be applied throughout. To illustrate the methodology Kevin examined the two-way frontage road concept. This concept has the advantage of being able to frequently incorporate the existing two-way road network near I-70.

It was explained that in the rural sections of I-70 the standard width of the median will be 124 feet, while in the urban sections things are obviously more constrained so that the standard section for the median is only 24 feet. In so far as possible it is a good idea to build the wider median to accommodate possible future growth needs. The exact beginning and end points of the two types of sections (urban versus rural) will be proposed and discussed as the planning continues.

As Kevin explained the initial two-way frontage road concept map from west to east he was able to point out the footprint of the initial drawing of various interchanges and how each might function. He also showed that in the rural sections the initial drawing calls for I-70 to be widened symmetrically both north and south of its current alignment. In the urban areas the widening is asymmetrical, either more to the north or more to the south depending on specific conditions.

A question was asked about facilities for bikes. In general, across the state, MoDOT is planning that bicycles can use the shoulder of the frontage roads. In urban areas it recognizes that special crossings and separation of bike traffic will be necessary in some places.

SUMMARY AND NEXT STEPS

We can expect information to get more and more specific at future meetings. At the next meeting, the Project Team will bring back the Evaluation Matrix in a more completed form. Some additional variables will be added such as near-term construction impacts. In addition, the Team will keep developing its analysis of the alternatives, continuing to hone in on the one or two for each segment that are beginning to look most promising. There also might be an opportunity to have the property acquisition process described in further detail at an

upcoming meeting. Finally, as described above, a business survey will be initiated and interim results should be available at the October meeting.

A concern was raised about how we can work to assure that people not familiar with the Advisory Group process are informed about the study, especially given its current fast pace. The response was that the Team will shortly reach out to businesses and will begin to contact more residents and neighborhoods before long. An extensive mailing list exists and has already been used. Public meetings and workshops will be advertised widely and The Osprey Group solicits additions to its email list so that anyone can become informed about the work of the Advisory Group and receive copies of these Meeting Summaries.

Buddy emphasized that the Team is looking for information and comment from people outside of the Advisory Group meetings themselves. He encouraged people to contact him via phone or email or the use the project website www.improveI70.org or project office 800 number (800-590-0066) to provide input.

The dates and times of the next two meetings of the Advisory Group are shown below.

UPCOMING ADVISORY GROUP MEETINGS

Thursday, October 23rd
4:00 – 6:30 pm
Gentry Middle School
4200 Bethel Street

Thursday, November 20th
4:00 – 6:30 pm
Location TBA

Agenda

IMPROVE I-70 ADVISORY GROUP

Meeting 7
4:00-6:30 p.m.
September 18, 2003

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

Meeting Goals: 1) Review project goals, challenges and constraints; 2) Define how various alternatives will be developed and evaluated; 3) Examine five widening concepts presented at public meeting with their advantages and disadvantages; 4) Identify emerging alternatives and provide illustrative example of one alternative and how it performs in an initial screening; 5) Clarify next steps in the planning process.

4:00 Convene Meeting

Dennis Donald, The Osprey Group

4:05 Updates

Dennis Donald, The Osprey Group

4:25 Project Goals and Context: Approach to Evaluating Alternatives

Buddy Desai and Rob Miller, CH2M Hill

5:10 Five Widening Concepts

Buddy Desai, CH2M Hill

5:30 Alternatives Emerging from Widening Concepts

Kevin Nichols, CH2M Hill

6:10 Next Steps in the I-70 Planning Process

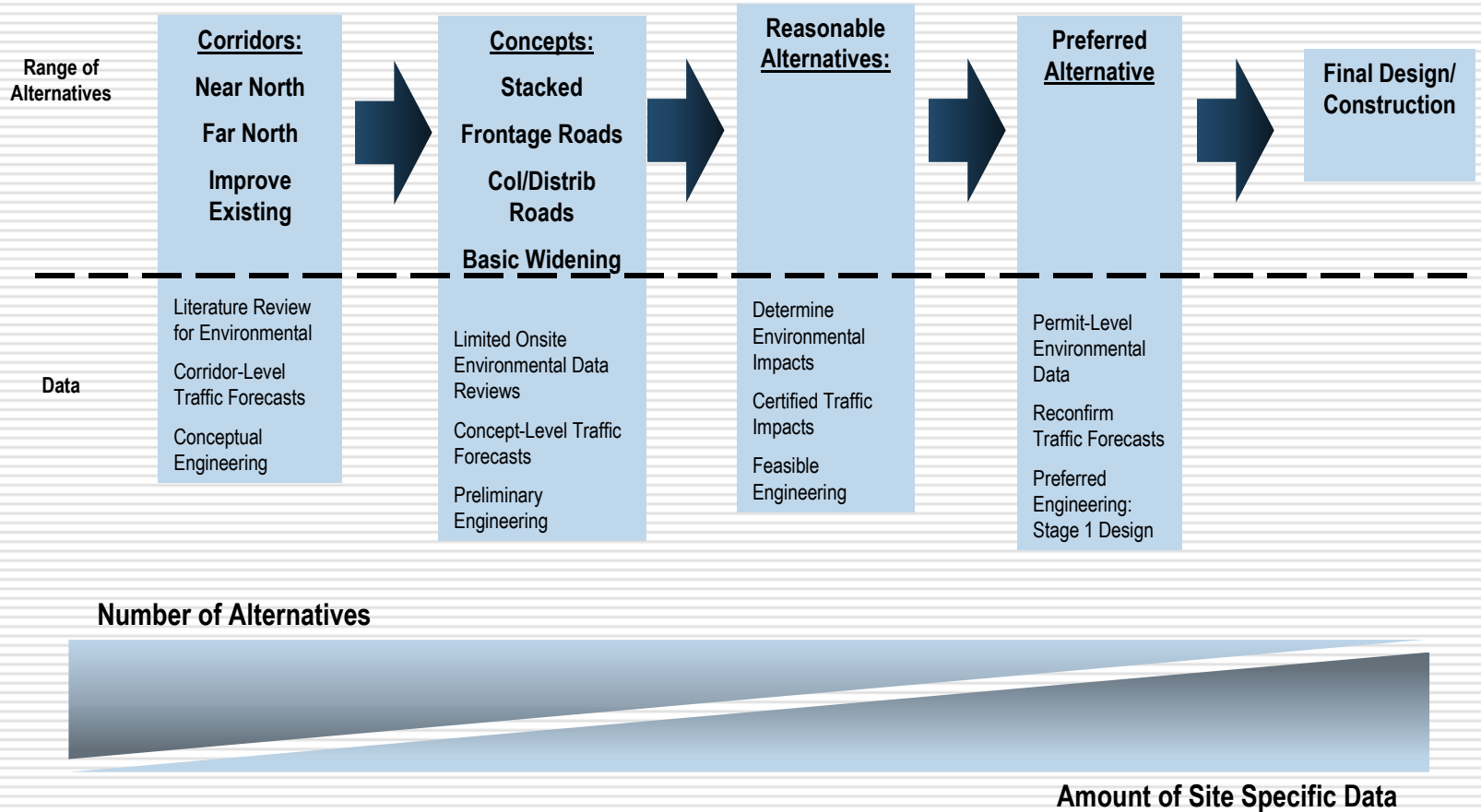
Buddy Desai, CH2M Hill

6:25 Closing and Next Steps for the Advisory Group

John Huyler, The Osprey Group

6:30 Adjourn

Right Level of Information to Make the Right Decisions at the Right Time



EVALUATION MATRIX SUMMARY						
Improve I-70: Columbia Area (SIU #4)						
September 18, 2003						
EVALUATION FACTORS/PRELIMINARY ALTERNATIVES		Concept				
		1	2	3	4	5
		Basic Widening	One-Way Frontage Road	Two-Way Frontage Road	Collector- Distributor Road	Stacked Highway
PURPOSE AND NEED						
1. Accommodate existing and future traffic volumes on I-70						
-Increase capacity to 6-lanes in rural/8-lanes in urban areas						0
-Meet highway Level of Service guidelines (volume/capacity)						0
-Flexibility for future expansion in the corridor						0
2. Improve existing I-70 deficiencies						
-Uncorrectable design elements associated with Concept						0
3. Implement a better strategy for accommodating all users of I-70						
-Substantially reduce local trips on I-70 through lanes						+
- Implement interchange designs with acceptable Level of Service						0
-Maintain Columbia-area access points						0
4. Improve user safety						
-Comply with MoDOT Access Management guidelines						-
-Effectively manage truck traffic						0
-Eliminate identified crash precursors						0
ENVIRONMENTAL IMPACTS						
Avoid Section 4(f) sites like Cosmo Park, other parks, historic sites						-
Total expected Phase I Environmental Site Assessments						0
Avoid prime farmland parcels						0
Avoid impacts to the "waters of the United States"						0
Avoid impacts to threatened and endangered species						0
Avoid noise impacts						-
Avoid cultural resource impacts (e.g. sites on Historic Register)						0
LAND USE IMPACTS						
Business displacements						0
Business access impacts						-
Residential displacements						0
Residential access impacts						-
Secondary impacts						0
SOCIO-ECONOMIC/COMMUNITY IMPACTS						
Expected travel pattern disruptions						-
Visual impacts						-
Potential for Environmental Justice issues						0
Potential for community service disruptions (EMS, fire, police)						-
Expected neighborhood/community values impacts						-
ENGINEERING						
Estimated construction cost						-
Total estimated Right-of-Way (ROW)						0
Constructibility						-
Maintenance of traffic						-
Displacements						0
Other engineering-related constraints						-
TOTALS						
	+	0	0	0	0	1
	o	0	0	0	0	19
	-	0	0	0	0	13

Legend	
Positive Impact - Important Decision-Making Factor	+
Neutral/Unclear/Contradictory Impact	o
Negative Impact - Important Decision-Making Factor	-

EVALUATION MATRIX Concept 5 - Stacked Highway Improve I-70: Columbia Area (SIU #4) September 18, 2003			
EVALUATION FACTORS		RATING	DECISION-MAKING FACTORS
PURPOSE AND NEED			
1. Accommodate existing and future traffic volumes on I-70			
-Increase capacity to 6-lanes in rural/8-lanes in urban areas		O	"Stacking" does not reduce the need for additional lane capacity
-Meet highway Level of Service guidelines (volume/capacity)		O	No apparent impediment to meeting threshold Level of Service
-Flexibility for future expansion in the corridor		O	The bridge viaduct columns will inhibit expansion of the mainline I-70 lanes in the future..
2. Improve existing I-70 deficiencies			
-Uncorrectable design elements associated with Concept		O	Design impacts expected to vary based on configuration of service roads & other improvements
3. Implement a better strategy for accommodating all users of I-70			
-Substantially reduce local trips on I-70 through lanes		+	Through traffic can be completely segregated from local traffic by "stacking"
- Implement interchange designs with acceptable Level of Service		O	Engineering requirements of "Stacked" design expected to reduce flexibility of interchange design
-Maintain Columbia-area access points		O	Engineering requirements of "Stacked" may lead to reductions in the number of access points
4. Improve user safety			
-Comply with MoDOT Access Management guidelines		-	Constraints associated with "Stacked" expected to negatively impact compliance
-Effectively manage truck traffic		O	Through traffic completely segregated but not all trucks are on through trips
-Eliminate identified crash precursors		O	"Stacked" highways may be counter to driver expectations, thus be a crash precursor itself
ENVIRONMENTAL IMPACTS			
Avoid Section 4(f) sites like Cosmo Park, other parks, historic sites		-	Engineering requirements of "Stacked" design expected to reduce flexibility of interchange design
Total expected Phase I Environmental Site Assessments		O	Footprint under "Stacked" is <u>only</u> lower if no service roads or other improvements are included
Avoid prime farmland parcels		O	No apparent impediment to avoiding encroachment
Avoid impacts to the "waters of the United States"		O	Footprint under "Stacked" is <u>only</u> lower if no service roads or other improvements are included
Avoid impacts to threatened and endangered species		O	Footprint under "Stacked" is <u>only</u> lower if no service roads or other improvements are included
Avoid noise impacts		-	Elevating the roadway will increase the noise profile of the project
Avoid cultural resource impacts (e.g. sites on Historic Register)		O	Footprint under "Stacked" is <u>only</u> lower if no service roads or other improvements are included
LAND USE IMPACTS			
Business displacements		O	Footprint under "Stacked" is <u>only</u> lower if no service roads or other improvements are included
Business access impacts		-	Travelers on through portion of "Stacked Section" will be unable to access local businesses
Residential displacements		O	Footprint under "Stacked" is <u>only</u> lower if no service roads or other improvements are included
Residential access impacts		-	Engineering requirements of "Stacked" will reduce flexibility in design of local connections
Secondary impacts		O	Potential impacts expected to vary based on configuration of service roads & other improvements
SOCIO-ECONOMIC/COMMUNITY IMPACTS			
Expected travel pattern disruptions		-	Reduced design flexibility expected to reduce ability to accommodate some traffic movements
Visual impacts		-	Elevating the roadway will increase the visual profile of the project
Potential for Environmental Justice issues		O	Impacts expected to vary based on configuration of service roads and other improvements
Potential for community service disruptions (EMS, fire, police)		-	Impacts expected to vary based on configuration of service roads and other improvements
Expected neighborhood/community values impacts		-	Impacts expected to vary based on configuration of service roads and other improvements
ENGINEERING			
Estimated construction cost		-	Highest construction and maintenance costs
Total estimated Right-of-Way (ROW)		O	ROW acquisition lower under "Stacking" <u>only</u> if no service roads or other improvements included
Constructibility		-	Requires construction of new highway over existing, operating roadways
Maintenance of traffic		-	After completion, no emergency access to "Stacked Sections"
Displacements		O	Displacements lower under "Stacking" <u>only</u> if no service roads or other improvements included
Other engineering-related constraints		-	Because of "Stacking", general maintenance is more difficult/expensive
TOTALS			
	+	1	
	O	19	
	-	13	

Legend	
Positive Impact - Important Decision-Making Factor	+
Neutral/Unclear/Contradictory Impact	O
Negative Impact - Important Decision-Making Factor	-

EVALUATION MATRIX - LINKAGE BETWEEN CONCEPTS AND ALTERNATIVES

Concept - Stacked Freeways

Reasonable Alternatives Emerging From This Concept - None

Improve I-70: Columbia Area (SIU #4)

September 18, 2003

EVALUATION FACTORS	PRELIMINARY ALTERNATIVE IMPACT ASSESSMENT	PROPOSED REASONABLE ALTERNATIVE DETAILS
PURPOSE AND NEED		
	- "Stacking" will not reduce the need to add through lanes to I-70	While "Stacking" addresses many of the elements of the project's Purpose and Need, the solution is viewed as too extreme to recommend further development. Also, the barrier effect of a "Stacked" freeway is viewed as counter to the "Accommodation of All Users" articulated in the Purpose and Need.
	- "Stacking" will increase the degree to which I-70 is a barrier between northern and southern Columbia	
	- Through traffic completely segregated from local traffic within "Stacked" sections	
ENVIRONMENTAL IMPACTS		
	- Demonstrably higher noise impacts	Since a "Stacked Freeway" alternative does not reduce the footprint of the project in the horizontal plane and adds to the vertical footprint, environmental impacts are expected to be no lower than with other Concepts. Consequently, no Reasonable Alternatives emerge from this Concept.
	- Reduced environmental impacts only if service roads and other improvements are not included in the project	
LAND USE IMPACTS		
	- Complete segregation of through/local traffic may have negative business impacts	The reduced flexibility associated with a "Stacked Freeway" will marginally degrade important land use factors. Consequently, no Reasonable Alternatives emerge from this Concept.
	- Reduced engineering flexibility expected to negatively impact local connections	
SOCIO-ECONOMIC/COMMUNITY IMPACTS		
	- Travel pattern alterations expected	Because a "Stacked Freeway" will increase the degree to which I-70 will be a barrier, no Reasonable Alternatives should emerge from this Concept.
	- Delivery of emergency services to "Stacked Freeway" will be difficult	
	- The degree to which I-70 will become a barrier between communities within Columbia will increase	
	- Demonstrably higher visual impacts	
ENGINEERING		
	- Cost prohibitive	Availability of less expensive and less complicated options leads to the recommendation that there are no Reasonable Alternatives that can emerge from this Concept. The operational and maintenance deficiencies associated with "Stacked Freeways" are usually only justifiable over short distances in the most highly congested areas. The conditions within the Columbia area are not suitable for "Stacked" freeway.
	- Difficult construction/maintenance/maintenance of traffic issues	

August 21, 2003 Public Workshop Comments

Preference in I-70 Widening Concept(s):	Comments Submitted at Public Workshop		Comments Submitted by Mail		Total	
	Yes	No	Yes	No	Yes	No
Concept 1 - Basic Widening	5		1		6	
Concept 2 - One-Way Frontage Roads	2				2	
Concept 3 - Two-Way Frontage Roads	7		2		9	
Concept 4 - Collector/Distributor	4				4	
Concept 5 - Stacked System	3	1	1		4	1
None	1				1	

Using only one of the above concepts is probably not an appropriate solution for the entire Columbia corridor, meaning that different concepts could be used at various locations. The following characteristics are important to me:	Comments Submitted at Public Workshop	Comments Submitted by Mail	Total	Comments Associated
Use existing roads as much as possible	11	4	15	
Separate local trips from through trips	10	3	13	As well as feeder arteries, i.e., Broadway
Maintain existing access patterns to and from I-70 and local roads	6	3	9	As well as interchanges
Limit amount of right of way needed	5	3	8	
Take weaving traffic movements off I-70	5	2	7	
Provide full access to abutting properties	3	1	4	
Provide limited access to abutting properties	3		3	
Directly access I-70 between interchanges	2	1	3	
Other:				
* Preservation of outer roads	1		1	
* Improved access to the west (To/From Through Midway)	1		1	
* Use of surface that quiets traffic noise - rubberized asphalt	1		1	
* Environmental effects	1		1	
* Limit the segregation/dividing of Columbia by building a wide concrete roadway structure.		1	1	
* Designs should include bike & pedestrian facilities for cross town movement		1	1	
* Appearance		1	1	



August 21, 2003 Public Workshop Comments

	Comments Submitted at Public Workshop	Comments Submitted by Mail	Total
Most IMPORTANT thing about choosing a widening concept is:			
Be respectful of residential and business owners that are affected by the widening	2		2
Separate local from through traffic	1	1	2
Good access management practices	1		1
Get through traffic on lanes without local access	1		1
Decrease number of access points in Columbia area	1		1
Moving truck and other traffic off local access ways	1		1
As Columbia becomes more pedestrian friendly, these routes need to remain intact	1		1
Improve efficiency while impacting property owners as little as possible		1	1
Improving efficiency while maintaining current access and improving safety	1		1
Safety	1		1
* Eliminate bottleneck of traffic flowing through Columbia	1		1
* Safety of entering I-70	1		1
Place holding lanes for getting off I-70 at each of the exchanges.	1		1
Slip ramp with access to the mall on eastbound I-70	1		1
All full diamond or clover leaf designs	1		1
Keeping construction cost down	1		1
Keeping construction cost down by using material we already have	1		1
Use existing roads as much as possible		1	1
A logical long term plan, implemented incrementally.	1		1
Use the best materials available in order to maximize the life of the roadway	1		1
It adversely affects fewer homeowners	1		1
Minimum ROW acquisition		1	1
Don't widen I-70. Local roads could be improved in design to keep traffic off I-70.		1	1
Provide outer roads to the west of Stadium to keep local traffic off of I-70 and speed up the flow of traffic at the busier intersections	1		1



August 21, 2003 Public Workshop Comments

	Comments Submitted at Public Workshop	Comments Submitted by Mail	Total
Other Comments:			
Include high quality bike/ped/wheelchair access across the highway & access roads. Include the design concepts now along with the new highway concepts & have them displayed for public viewing.*	2	2	4
MoDOT needs to regain credibility with the public	1	1	2
MoDOT has not given enough notice to the given areas/areas most affected about the meeting	1		1
Treat Columbia equal to St. Louis and Kansas City (and do traditional interchanges)	1		1
City of Columbia should create better East-West corridors to take good amount of local traffic off I-70	1		1
Keep in mind good public transportation and incorporate the possibility of a train along the corridor (i.e. buy enough Right of Way for the future)		1	1
Keep in mind noise pollution issues and use materials to keep noise pollution down.		1	1
Prefer shown alternative #2 on Route Z & I-70	1		1
Prefer Alternate Plan #2 at Route Z due to the fact it misses historical house, misses Lovealls, and takes less of commenter's property at the northern most intersection point. Commenter will also need a short access road to the adjacent pasture	1		1
One way frontage roads condense land usage and are easy to understand and follow	1		1
Use of one way frontage roads is a safe & effective way to relieve congestion	1		1
Prefer that I-70 be expanded but that frontage roads on both north and south sides be two lane traffic in each direction	1		1
Width of the roadway is fine, but the roadway surface needs greater attention and improvement	1		1
The most important issue is long time viability of these solutions	1		1
Since I-70 is the most used interstate in the country, commenter is pleased to know work is being done to improve it as standard of living will consequently improve	1		1
Concepts were shown well and questions were answered	1		1
Concepts were creative	1		1
What is the time frame for modeling the concepts?	1		1
Use highway enhancement concepts similar to the Pima Freeway in Phoenix	1		1
Single Point Urban interchange at Stadium Exchange & Midway	1		1
Another access is needed west of Stadium if frontage roads are utilized	1		1
Need to route local traffic north of Midway to connect with Broadway/Scott Blvd	1		1
Place exit ramp off west bound I-70 onto Route B or Paris Road	1		1
Likes the idea of bridges for local traffic across Perche Creek	1		1
Need a bridge across Hinkson Creek to join Business Loop 70 East to Conley Lane	1		1
It would be nice to have I-70 west to north 63	1		1
Totally rework 63-I-70 and West Blvd interchanges in a logical way - similar to Highway 40 from Wentzville to St. Louis	1		1
People within the widening zone will need time to adjust to the idea of relocation	1		1
There are a large number of businesses on the south side of I-70 between Stadium and W. Blvd. By keeping this change to the north of existing I-70 there is a lot more vacant area, maybe even to Old Highway 40	1		1
Opposes bypass option due to noise & traffic that would occur near commenter's property		1	1
Northern bypass instead. The existing corridor is unable to handle the slow down of the roadway due to construction.		1	1
Opposes Kronke Interchange. Would propose having an interchange at Midway or UU to alleviate westbound I-70 traffic		1	1

* Pedestrian trails to consider: Perche Creek, Hinkson Creek, Homing Branch, & Grinstone Creek North Trails. More information & maps can be referenced at www.pednet.org

Meeting Summary

IMPROVE I-70 ADVISORY GROUP

8th Meeting

Gentry Middle School
4200 Bethel Street
Columbia, Missouri

October 23, 2003

This is a summary of the key informational and action items from the eighth meeting of the Improve I-70 Advisory Group

GENERAL

Members Present

Members of the Advisory Group attending the meeting: Craig Adams, Jeff Barrow, Bob Bechtold, Susan Clark, Dave Griggs, Chris Janku, Kory Kaufman, David Mink, Larry Moore, Bud Moulder, Lowell Patterson, Justin Perry, Garry Taylor, and Bob Walters.

Dennis Donald and John Huyler of The Osprey Group facilitated the meeting.

Materials Available

Materials available at the meeting in addition to the agenda included:

- Project update showing status of socioeconomic and other environmental studies
- Cover letter sent to prospective business interviewees
- Brief description of the business survey purpose and approach
- Press release describing activities of the Improve I-70 project through the end of the year.

Meeting Goals

The overarching goal for this meeting was to understand, discuss and receive input about the significant advantages and disadvantages of the emerging widening alternatives.

Specific meeting goals included: 1) review current status of study, including the business survey; 2) understand and discuss the emerging improvement alternatives; 3) engage in informed discussion about widening challenges, community values and tradeoffs.

While there was some information available at the meeting, most of the discussion centered around several alignments the consulting team had developed. This was one of the first meetings where the proverbial “lines on the map” were being presented to illustrate the

differences between the three widening concepts. After presentations from the consultants using large maps, a block of time was devoted to Advisory Group discussion and input.

SUMMARY OF ISSUES AND ADVISORY GROUP INPUT

The meeting opened with the mention of a couple of public outreach efforts. One was a drop-in center that would take place on November 4 at the Days Inn Conference Center. The other is a public open house that is scheduled for December 11 at the ARC.

Overview: Status of Planning

Buddy Desai from CH2M Hill opened the substantive portion of the meeting with an overview about the status of the planning. He mentioned that the evaluation matrix, presented as a conceptual evaluation tool at the previous meeting, would not be presented at this meeting, but he anticipated a largely complete version being available at the November meeting.

Mr. Desai noted that while much of what has been presented to the Advisory Group to date has emphasized the engineering aspects of the project, such as traffic analysis, there are a host of other studies proceeding concurrently as required by the National Environmental Policy Act or NEPA. The handout provided an update about the status of these investigations. He also highlighted specific information related to wetland studies, cultural resource investigations, and hazardous materials evaluations. He mentioned that noise studies will occur as the study moves forward and the preferred improvement alternative is more precisely defined.

Business Survey

The business survey was discussed from several dimensions. Mr. Desai was asked to talk about the purpose of the business survey and to describe how the information from the survey will be used to help hone and evaluate the various alternatives that are under consideration. Secondly, Mr. Roy Dudark, Columbia City Planning Director, was asked to speak to the city's plans to evaluate the fiscal impacts related to I-70. Thirdly, Mr. Gary Vandelicht from the Berger Group was present to speak to the specifics about the business survey.

Mr. Desai began his remarks by thanking those on the Advisory Group who provided input on the initial version of the survey questionnaire. The input from the Group helped modify and improve the survey instrument. He continued by noting that the economic impacts of a project are a very important part of the whole process. The business survey is a tool to help gauge the magnitude of the business and economic impacts of the construction and expansion of the highway. He mentioned that the "footprint" of the various alternatives under consideration is increasingly becoming more exact so that it is possible to pinpoint the businesses that are likely to be impacted. The survey focuses on those businesses along the I-70 corridor that might be impacted by the construction and expansion. He reinforced that those being interviewed will not necessarily be impacted, but they might be depending upon the ultimate decisions about the alternatives and their associated footprint.

The goal of the survey is to determine who the businesses are, what they do, why they do it, how many people they employ, and so on. No information is being gathered related to

income and the data will be presented in an aggregate format to preserve confidentiality. The information about the characteristics of the business community along this corridor will help the consultants select the preferred alternative. This will be one of a number of factors that goes into making that decision. And, once an alternative is selected, the data will be used to refine the alternative and minimize impacts both during and after construction.

Mr. Dudark said that Monday night the city manager gave a report to the City Council about the likely fiscal impact on the city of the construction and improvements to I-70. The concern is about the businesses and their contributions to the community's tax base through sales taxes, hotel/motel taxes, gross receipt taxes, various other kinds of revenue streams that could be affected by a disruption or the displacement of businesses. Once the footprint of the preferred alternative is known and there is a better sense of the businesses that will be impacted, it is expected that a more refined analysis could be developed about the nature and magnitude of the fiscal impact. The city manager asked for the Council's authorization in seeking outside support to help answer these fiscal impact questions.

Mr. Vandelicht indicated that the business survey started the previous Monday. The process involved identifying the appropriate contact person and sending along a packet of information about the project and the survey. The packet included the Pathways for Progress booklet that MoDOT has developed for property owners that might be impacted by transportation improvements. At the time of the meeting, Mr. Vandelicht said that over 100 businesses had been contacted. The level of interest and cooperation from the business community was reportedly quite high. He said that, by the time of the November Advisory Group meeting, they expect to have the survey results available at least in a preliminary fashion.

Three Emerging Alternatives: One-Way, Two-Way and CD Systems

Since the overall goal of this meeting was to, "understand, discuss and receive input about the significant advantages and disadvantages of the emerging widening concepts," the Advisory Group experimented with a new format. Large maps were spread out on the table and posted on the wall and the Advisory Group huddled around them.

Mr. Kevin Nichols of CH2M Hill described each of the widening concepts in detail by walking the Group through the maps from west to east. The purpose was to illustrate, at the macro level, how each concept might function, how the "rural" sections of the corridor are different from the compact "urban" portions, how the impact to the community of each widening concept might vary, where significant constraints exist, and some of the hard choices and tradeoffs that need to be addressed at specific illustrative "pinch points." It was hoped that the questions and discussion that followed the explanation of the concepts would begin to elicit information about the community's values and important tradeoffs.

Two-way frontage road system. The Group began by focusing on a large map that illustrated the two-way frontage road concept. At the end of the introduction to this concept, Mr. Desai summarized some of its advantages and disadvantages. He did the same for the other two concepts after the illustrative maps had been explained in detail.

Advantages:

- maintains access in both directions

- essentially maintains existing access patterns
- provides full access to abutting properties because businesses and residences can be accessed by both left and right turns. Thus access is, for the most part, the same as today.

Disadvantages:

- doesn't provide a very efficient facility to separate local trips from through trips
- because this is still two-way travel you still have to negotiate left turns in front of you which diminishes safety
- with so many access points, the speeds on one-way frontage roads are quite slow
- weaving issues are not alleviated on I-70

One-way frontage road system.

Advantages:

- provides a new local roadway to provide mobility from east to west
- is a little bit safer than the two-way system
- will operate at slightly higher speeds than a two-way system

Disadvantages:

- right-in/right-out only means that some traffic needs to circle around
- because of the Texas turnarounds, weaving on I-70 is improved, but it is not completely eliminated

Collector-Distributor system.

The CD system shown on the illustrative map covered about a six-mile stretch of I-70 through Columbia's urban core. Access to and from the freeway was shown in the middle at about the three-mile point. The CD system does not allow much access; it is too fast and much access would be unsafe.

Advantages:

- does the very best job of separating through and local traffic
- does a very good job of moving weaving movements off of I-70

Disadvantages:

- provides no access to abutting properties
- has the widest footprint

General discussion.

In the urban core area six interchanges are shown. There are also two western and two eastern interchanges that are best served by a two-way frontage road system that currently exists and is more consistent with driver expectations in a more rural environment. The fact

that federal monies have been put into Cosmo Park means that it's afforded additional protection under law.

There was an illustration of several "pinch points." The first example was a CD configuration that showed that with the investment of a great deal of money it would be possible to take an interchange and squeeze it together by putting in retaining walls. In another illustration, if standard appropriate slopes are used to change elevation between ramps it produces a ramp that is high and a CD road that is low. With the need to put a drainage ditch, clear zone and dealing with safety issues the footprint becomes increasingly wide.

Discussion ensued about: the value of park land the possibility of diverting a creek into a culvert, the importance of good access to businesses, the fact that "locals" would likely figure out how to make the best of any access road configuration but that through traffic on I-70 might avoid stopping in Columbia if access is too difficult or confusing, the best ways to relieve congestion around Stadium, and the fact that pedestrian access will be provided at the various bridges except where doing so does not make sense because of safety or other important considerations.

Mr. Nichols explained the approach to developing hybrid or combination alternatives. He said that the work will involve systematically evaluating each of the three major concepts relative to the six central interchanges. Through the evaluation process and feedback from the Advisory Group and others it will begin to become apparent that certain configurations work better in one location than another. He went on to make the point that "with the CD system you are adding the two-way frontage, improving your operations on the freeway. But the two-way system is still intact. We have not taken that out of the mix. The same is true with the one-way system. We have added the one-way system to the two-way system. . . . If you want to improve some of the local access and some of the freeway operations, maybe you go to a one-way system in addition to the two-way and then the CD further enhances that. So it is kind of a step-wise thing."

Mr Desai added, in response to a question, that the CD system works better to keep traffic moving if there is a major shutdown on the interstate. In response to a question about cost comparisons the point was made that CDs tend to be a little more expensive because the bridges are longer since the CD roads need to go under the bridges. But generalizations are difficult since so much of the cost depends on specific circumstances. Several Advisory Group members related their good experience with "Texas turnarounds" in other states.

At the close of the discussion Mr. Desai reiterated that the Study Team does not have a preference at this point, "I know from our study team's standpoint . . . we don't have a preference. And one of the reasons why we wanted to spend so much time of this meeting just talking and having this general discussion is for people to raise issues such as you have raised . . . eventually we will have a set of systems that work and then it boils down to the tough decisions of what is more important, are the relocations more important than separating the through and local traffic? The speed of local traffic, is that more important than this? And that is where we need your help so you can tell us what is important and we can make educated decisions."

SUMMARY AND NEXT STEPS

It was suggested that the information presented on the maps might be shared using CD's or that the maps be made available for viewing at other locations in Columbia. There was strong interest from virtually everyone on the Advisory Group in receiving a CD so that they could review the alignments more carefully. Mr. Desai indicated that CD's could be made and distributed. He also noted that the table with advantages and disadvantages by concept could be included on the CD as well.

Some of the public outreach efforts were described. The November 4th drop-in center and the December 11th open house were noted. The next meeting of the Advisory Group is scheduled for November 20th and it will be at the ARC.

The November 20th meeting was briefly previewed. It was noted that the preferred alternative will not be available at that time, but that the alignment alternatives will be refined and there will be more cost, traffic, and economic data to help evaluate the options. Some of this analysis will likely set the stage for the creation of hybrid concepts that mix and match the various concepts that have been shared with the Advisory Group. The business survey findings or highlights, at least in a preliminary form, will be available for review. Finally, it was recommended that an individual knowledgeable about the property acquisition process be available at the November meeting.

Upcoming Advisory Group
Meetings

November 20, 2003
January 29, 2004

Agenda

IMPROVE I-70 ADVISORY GROUP

Meeting 8
4:00-6:30 p.m.
October 23, 2003

Gentry Middle School
4200 Bethel Street
Columbia, Missouri

Overall Goal: Understand, discuss and receive input about the significant advantages and disadvantages of the emerging widening alternatives.

Specific Meeting Goals: 1) Review current status of study, including the business survey; 2) Understand and discuss the emerging improvement alternatives; 3) Engage in informed discussion about widening challenges, community values and tradeoffs.

- 4:00 Convene Meeting, Agenda Review, and Updates**
The Osprey Group
- 4:10 Overview: Status of Planning**
Buddy Desai, CH2MHill
- 4:20 Business Survey**
Buddy Desai and Gary Vandelicht, The Louis Berger Group
- 4:40 Overview of Three Concepts: Pros, Cons, and Challenges**
Buddy Desai and Kevin Nichols, CH2MHill
- 5:00 Three Emerging Alternatives: One-Way, Two-Way, and CD Systems**
Buddy Desai and Kevin Nichols, CH2MHill
- 5:50 Advisory Group Discussion**
The Osprey Group
- 6:20 Closing and Next Steps**
The Osprey Group
- 6:30 Adjourn**



Columbia Area Project Update October 23, 2003

In conjunction with the engineering functions associated with the Improve I-70 project, numerous environmental studies are also underway. These studies are intended to satisfy the requirements of the National Environmental Policy Act (NEPA), which prohibits significant and avoidable negative impacts. The identification of important man-made and natural resources will assist in the process of developing and evaluating alternatives that achieve this goal. Below is a brief status report of the various, on-going environmental activities:

Preliminary Wetland Investigations – Field reviews are complete. Executive Order 11990 requires that projects with wetland encroachments demonstrate that there are no practical alternatives to construction in wetlands.

Cultural Resource Investigations – Field studies to identify architectural resources eligible for the National Register of Historic Places (NRHP) are underway. To date, five eligible or potentially eligible NRHP sites have been identified. Section 106 of the National Historic Preservation Act requires that every Federal undertaking take into account how it could affect historic properties.

Social, Economic and Community Investigations – Among the on-going investigations are a Business Survey and a Business Inventory. The Business Survey is intended to engage those businesses within the immediate vicinity of the anticipated I-70 improvements to determine how they might be impacted by the project. This will assist the project team in developing and evaluating alternatives that minimize impacts to the extent possible.

Hazardous Materials Investigations – A "Screening-Level" survey has been completed for the study area. It identified approximately 40 properties that, if impacted by the I-70 project, will require further investigation.

Noise Investigations – As the project alternatives emerge, a noise investigation will be conducted to examine the noise impacts associated with the project. The Federal Highway Administration requires that noise abatement must be considered when there are specific levels of noise impacts.

Endangered Species Investigations – This project is subject to both the Federal and State Endangered Species Acts. Coordination with the Missouri Department of Natural Resources and the U.S. Fish and Wildlife Service has been undertaken. A population of the State endangered bristled cyperus has been identified in close proximity to I-70. Transplantation efforts are being coordinated by the Missouri Department of Transportation.

Section 4(f) Investigations – Section 4(f) of the Department of Transportation Act requires that special consideration be given to historic resources and publicly owned public park/recreation facilities. Impacts to Section 4(f) resources are prohibited unless there is no feasible and prudent alternative. Because of the proximity of Cosmo Park to I-70, coordination with the park's administrators has begun.

Agricultural Resource Investigations – The Farmland Policy Protection Act (FPPA) is intended to minimize the unnecessary conversion of farmland during federal projects. FPPA coordination with the National Resources Conservation Service has been initiated for the I-70 project. Among the important findings has been the identification of farmland in the Conservation Reserve Program (CRP). The CRP is a voluntary farmland set-aside program.

Displacement Investigations – The emerging alternatives are being evaluated for the amount and type of displacements that they cause. The improvement of I-70 will require the purchase of private property. The displacement evaluations are intended to minimize the impacts to existing landowners to the extent possible.

Visual Impact Assessments – The emerging alternatives will undergo a Visual Impact Assessment in accordance with FHWA policy, procedures and guidance. This assessment will describe the visual character of the project area, identify existing sensitive visual resources, quantify impacts and discuss mitigation.

Environmental Justice Investigations – Environmental Justice is the term used to describe the concept of identifying, addressing and avoiding disproportionately high and adverse human health or environmental effects on minority and low income populations. Executive Order 12898 and Title VI of the Civil Rights Act are the primary guidance documents for Environmental Justice. The identification of applicable populations and an evaluation of impacts are underway for the emerging alternatives.

Land Use Investigations – The impacts of the emerging alternatives are being evaluated for how they impact established land use and zoning plans.

Stream and Floodplain Investigations – Section 404 of the Clean Water Act establishes a permit system to regulate the discharges of fill to the Waters of the United States. Section 401 of the Clean Water Act authorizes Water Quality Certifications for projects requiring Section 404 permits. The necessary investigations and coordination to successfully comply with Sections 404 and 401 are underway for the Improve I-70 project.



MEMORANDUM

CH2MHILL

727 North First Street, Suite 400
St. Louis, MO 63102-2542
314-421-0313
Fax-314-421-3927

DATE: October 14, 2003
TO: Improve I-70 Advisory Group Members
FROM: Buddy Desai, CH2M HILL Project Manager
CC: Improve I-70 Project Team, Advisory Group

SUBJECT: Business Impact Survey

RE: **CHECK APPROPRIATE JOB WITH "X"**

SIU No. 1 - J4I1341D

SIU No. 2 - J4I1341E

SIU No. 3 - J4I1341F

SIU No. 4 - J4I1341G

X

SIU No. 5 - J4I1341H

SIU No. 6 - J4I1341J

SIU No. 7 - J4I1341K

Now that widening concepts and alternatives are beginning to emerge, the Project Team is identifying parcel owners and businesses that might be affected by various widening proposals. As indicated in an e-mail to the Advisory Group in early October, one of the next steps is to survey potentially impacted businesses to learn more how construction and widening of I-70 might affect them in the short- and long-term. This information will be used to inform the decision-making process and refine alternatives to avoid and/or mitigate impacts. A separate process will be initiated to contact affected neighborhoods and residents.

The business impact survey is being conducted by the Louis Berger Group, a member of the CH2M HILL Project Team. The following is the process they will use:

Survey Process

- 1) Identify business parcels within the footprint of emerging alternatives (approximately 250 businesses)
- 2) Seek input on the survey instrument from business members of the Advisory Group and make adjustments as needed.
- 3) Call targeted businesses to discuss the survey and to identify appropriate recipient and schedule interviews, if possible.
- 4) Mail/fax/e-mail survey to business in advance of telephone or face-to-face interview.
- 5) Call appropriate recipient to conduct telephone interview or schedule face-to-face interview. Requests for face- to- face interviews will be accommodated to the extent practical or when requested by a business.



MEMORANDUM

CH2MHILL

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-
- 6) The businesses to be surveyed will be subdivided by location and the survey calls will proceed in "waves".

Anticipated Outcomes

- 1) Data that will assist the Advisory Group and Project team understand, quantify and evaluate possible impacts on businesses. The goal is to share survey results at the November 20th Advisory Group meeting.
- 2) Data that will help the Project Team refine the emerging alternatives to avoid, minimize or mitigate impacts to the extent possible. While a 100 percent response rate is not anticipated, the survey results will identify general trends, concerns and opportunities that will inform the decision-making process.

We anticipate this survey will prompt many questions -- and possibly concerns -- by the business community. As you know, precise alignments have not been selected, and funds for widening I-70 are not available yet. So any property purchases will be years away. When it is time to acquire property, MoDOT will comply with the policies and provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act, which provides for fair and equitable treatment of persons whose property will be acquired or who will be displaced because of programs or projects financed with Federal funds.

To address widening concerns and seek feedback from businesses, residents and others who might be affected, MoDOT and the Project Team will host a day-long **"drop in" session on Tuesday, November 4, 10 a.m. to 6 p.m., at the Days Inn located at 1900 I-70 Dr. SW.**

n e w s

Missouri Department of Transportation

For more information, contact Project Development Outreach Coordinator Bob Brendel, (573) 751-8717.



*Release available @
www.modot.org*

October 16, 2003 – For immediate release

No. 53L

‘Improve I-70’ Activities Accelerate For Remainder of 2003

JEFFERSON CITY – The pace of opportunities for members of the general public to offer input into the Missouri Department of Transportation’s plans for widening and rebuilding Interstate 70 in the Columbia area is about to accelerate. Several outreach efforts will take place in the next few months, including advisory group meetings, a public meeting, small group events and one-on-one interviews with business owners in the corridor to better assess the project’s impacts and their affects.

The advisory group’s next two meetings will be Oct. 23, and Nov. 20 as they continue to examine widening alternatives that are being developed by the project team. The October meeting will be held in the Media Center at Gentry Middle School, 4200 Bethel. The November meeting will be held at the Columbia Activities and Recreation Center, 1701 W. Ash. Both meetings run from 4-6:30 p.m.

On Nov. 4, the Improve I-70 team will host a “drop-in center” at the Days Inn, 1900 I-70 Drive SW from 10 a.m. until 6 p.m. Members of the public are invited to stop by at any time to visit with study team members and to view the latest available information. Also during the coming weeks, team members will be in the field conducting surveys within the I-70 corridor to assess the characteristics of business located there and any potential impacts that may be generated by construction of major I-70 improvements.

Finally, a public meeting will be held from 4-7 p.m. Dec. 11 at the ARC. By that meeting, it is expected that the range of proposed alternatives for I-70’s through lanes and its

associated interchanges in the Columbia area will have been reduced to those that are most reasonable.

Concepts shown at the workshop, though, will not determine which properties will be affected by future construction. Establishment of new right of way needs for the I-70 corridor will not occur until much later in the process, when a preferred alternative is selected.

Questions, comments and concerns about I-70 are welcome. Those interested in the project may contact the Improve I-70 team by phone at 1-800-590-0066, by mail at Improve I-70, P.O. Box 410482, Kansas City, MO 64141, or by email at comments@ImproveI70.org. Citizens may also visit the project web site at www.ImproveI70.org and register electronically to be placed on the Improve I-70 mailing list.

Displays from previous public and advisory group meetings are also contained on the web site in the “Local Focus” section.

###



I-70 Widening Concept Comparison

The following table was developed to display how four widening concepts compare to each other according to a number of factors important in the widening and reconstruction of I-70 through Columbia. All four concepts have basic advantages and disadvantages. This table is not meant to reflect any concept as more preferable than another.

Comment Categories				
	Basic Widening Concept	One-way Frontage Road Concept	Two-way Frontage Road Concept	Collector-Distributor (C-D) Concept
Travel/Access Patterns <i>Does the concept change how a motorist travels through and around Columbia, or how they access properties in and around Columbia?</i>	Maintains same travel patterns and basic access as today.	Concept results in some out-of-direction travel (with Texas Turnarounds), and maintains only one direction of existing access	Maintains same travel patterns and basic access as today	Concept results in some out-of-direction travel but maintains same basic access as today
Local Connections <i>Does the concept enhance connections to and within the existing roadway network?</i>	Provides no additional local connectivity in key areas (e.g. Perche Creek)	Provides additional local connectivity in key areas (e.g. Perche Creek)	Provides additional local connectivity in key areas (e.g. Perche Creek)	Provides additional local connectivity in key areas (e.g. Perche Creek)
Access to Abutting Properties <i>How does the concept provide access to properties located along I-70?</i>	Maintains current access to abutting properties	Allows only right turns into and out of abutting properties	Maintains current access to abutting properties	No access is provided between the CD roads and abutting properties. Concepts uses the existing road system as full-access backage roads
Local Road Capacity Parallel to I-70 <i>Does the concept provide for increased levels of traffic on local roads parallel to I-70?</i>	Does not provide any additional local road capacity	Provides some additional local road capacity	Does not provide any additional local road capacity	Provides some additional local road capacity
Freeway Access <i>How does the concept allow motorists to get onto and off of I-70?</i>	Access is the same as today	Access to I-70 would be slightly more limited than today, with most but not all interchanges having direct connections with I-70	Access is the same as today	Access to I-70 significantly more limited than today, providing only 2-3 exits and 2-3 entrances to/from I-70 within the core area of Columbia.
Local vs. Through Traffic Mix <i>Does the concept improve I-70 operations by separating local travelers from those traveling through Columbia?</i>	Does not provide facilities to separate local trips from "through" trips on I-70	Concept has ability to separate local trips from "through" trips on I-70, but does not provide facilities for full separation	Concept has ability to separate local trips from "through" trips on I-70, but does not provide facilities for full separation	Concept does the best job of separating local trips from "through" trips on I-70
Operating Speeds for Local Traffic <i>How does the concept affect the speed of local traffic?</i>	Operating speed is no different than from today	Improvement from today as one-way frontage roads with well-timed signals provide for higher speed than local streets	No improvement from today.	Improves speed of local trips that use C-D roads. CD roads operate at speeds faster than one-way frontage roads.
Right of Way Requirements <i>How much space is needed to build this concept compared to others and compared to the existing footprint of I-70?</i>	Requires more right of way than the existing footprint of I-70, but the least amount of any other concept.	Requires more right-of-way than basic widening	Requires more right-of-way than basic widening and one-way frontage road	Requires more right-of-way than any other concept
Weaving <i>Does the concept address the problem of vehicles crossing paths as some are getting on and some are getting off of I-70?</i>	Existing weaving problems remain	Weaving on I-70 is improved but not eliminated	Weaving on I-70 is improved but not eliminated	Moves weaving from I-70 onto CD roads where it can be better managed

Meeting Summary

IMPROVE I-70 ADVISORY GROUP

9th Meeting

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

November 20, 2003

This is a summary of the key informational and action items from the ninth meeting of the Improve I-70 Advisory Group.

GENERAL

Members Present

Members of the Advisory Group attending the meeting: Craig Adams, Bernie Andrews, Jeff Barrow, Bob Bechtold, Elaine Blodgett, Susan Clark, Chip Cooper, Skip Elkin, Dave Griggs, Chris Janku, David Mink, Tom Moran, Bud Moulder, Lowell Peterson and Bob Walters.

Dennis Donald and John Huyler of The Osprey Group facilitated the meeting.

Materials Available at the Meeting

In addition to the agenda, materials, available for discussion at the meeting included:

- Update about the Columbia Area Business Survey
- Preliminary Evaluation Matrix Summary
- “Pathways for Progress,” a pamphlet on CDOT’s land acquisition procedures
- Draft of “Questions About I-70 Improvements in the Columbia Area”
- Updated I-70 Columbia Project Schedule
- Article from the Columbia Missourian entitled “Widening Meeting Planned”

Meeting Goals

The overall goal of this meeting was to have the Advisory Group understand and provide input to the ongoing refinement of alignments and widening concepts.

Specific goals were: 1) Hear the results of the business survey; 2) Understand the analytical refinements of the concepts and alignments under consideration; 3) Clarify the process and timing to reach a preferred alternative; 4) Explain the property acquisition process used by MoDOT; 5) Identify the desired role for the Advisory Group over the next several months.

Preliminary Items

Buddy Desai of CH2M Hill told the Group about a meeting that involved people particularly interested in Stadium Boulevard. Mr. Desai reported that the purpose of the meeting was to exchange information about the roles and responsibilities of people working on the EIS and the interests and activities of others.

Bob Brendel then reported about the November 4th Drop-In Center which attracted some 230 people. He said that, in addition to the helpful feedback the Team had received from many citizens, the drop-in provided a good opportunity for many business owners to complete their surveys.

SUMMARY OF ISSUES AND ADVISORY GROUP INPUT

Business Survey Preliminary Findings:

Gary Vanderlicht of The Louis Berger Group summarized the progress made to date on the business survey. He referred people to the handout and reported that he expects a better than 50 percent response rate. Based on the responses so far, Mr. Vanderlicht indicated that:

- Thirty nine percent of the respondents indicated that if they have to relocate, they want to stay within a quarter mile or a half mile of an exit.
- The majority indicated that they think improving I-70 will be of benefit to the economy; they support the improvements.
- A key concern to many businesses is the apparent lack of suitable alternate sites if they must relocate.
- Another concern is about temporary business impacts during construction.

Mr. Desai then added to what had been said, emphasizing that because of the survey the team will be better able to understand the business community, the nature of their interests, and the magnitude of impacts associated with planning decisions. The team will also be positioned to avoid or minimize the negative impacts to businesses along the corridor.

The Refined Alignments and Concepts

This presentation and discussion was conducted in two stages. First, Kevin Nichols and Buddy Desai from CH2M Hill made opening remarks about the various alignment alternatives. Second, the presentation and discussion continued around a series of maps that graphically presented the alignment options for the rural and urban portions of the study area. In the urban area, three alternative concepts were developed and discussed: a two-way frontage-road concept, the C-D road concept, and a one-way concept. This screening of the concepts is a key step in moving toward the creation of a set of reasonable alternatives, some of which might be hybrid options that capture some of the strengths and minimize some of the negative aspects of each individual concept. These “reasonable alternatives” will be available for the Advisory Group to review at its next meeting in early 2004.

Mr. Nichols provided the initial remarks and set the stage for Advisory Group discussion. He noted that all the plans had been updated for consistency. The maps also reflected the footprint or anticipated construction impact associated with the various concepts. He noted

that the footprint also provided for the possibility of adding an additional lane on the interstate for future capacity.

The projected traffic for all three concepts has been evaluated preliminarily. Mr. Nichols stressed that these numbers were still subject to review. How various concepts operate from a traffic perspective was the focus of his presentation. He also reintroduced the notion of level of service (LOS) that had been discussed at earlier meetings

Developing the Reasonable Range of Alternatives

Level of Service (LOS) is a measure of how effectively a highway can move the volume of traffic it carries. Ranging from LOS A (free-flow conditions) to LOS F (gridlock), the measure takes into account the driver's speed, freedom to maneuver and proximity to other vehicles. Of course a highway facility operates at different levels of service at different times of the day. Traffic operations during peak periods like morning and evening rush hour are much different than the middle of the night, for example.

As engineers plan for I-70 improvements, they must determine the number of lanes and basic design needed to reach a minimum level of service during peak periods in the future. This ensures that traffic operations will be acceptable during the busiest times, but also means traffic will not operate perfectly all the time.

Consistent with standards used throughout the country, the minimum LOS being used for I-70 through Columbia during peak periods in the future is C in the rural areas and D in urban areas. This means that during the busiest times, traffic will move well and at other times it will operate better. Mr. Nichols stated that designing to a LOS A all the time would not only be cost prohibitive and an unwise use of resources; it would generate many unacceptable impacts to the community.

Mr. Nichols then identified various problems areas, such as ramps and interchanges, which would operate at unacceptable levels given projected 2030 traffic. He also noted that the solution in several of these cases would not be to simply add another lane on the freeway. As an example, he stated that the Stadium interchange is "broken today" and, given future increases in traffic, it will operate at an even more unacceptable level.

A question was asked about the LOS design goal. It seemed to one Group member that we are designing for something mediocre. How do we know that designing for something better would be too costly? Mr. Nichols noted that certain locations will operate at level of service A. But, because this is such a complex system, there are going to be certain points that are going to operate at a lower level of service. So, the threshold for decision as to whether something is broken or not is the minimal criterion, level of service D or C depending on the location. He also noted that attempting to operate at level of service A through Columbia during the busiest times of the day might require an additional three lanes of interstate beyond what is currently envisioned.

Another question was raised about what is presently rural and might these areas become urban by 2030? Mr. Nichols indicated they had taken that change in land use into account in their modeling.

A follow-up question was asked about whether these design levels were based on peak volumes. Mr. Nichols responded that they were based on design hourly volumes. Elaborating, he said that design hourly volumes reflect morning and afternoon peak traffic when many are commuting to and from work. So, they are designing for peak traffic. During many times of the day, the various parts of the system will operate fine, but during these peak times, certain locations, such as Stadium now, will be operating at poor levels.

Property Acquisition Process

After emphasizing that the acquisition of property is certainly not imminent, John Huyler introduced Terry Sampson, the Right-of-Way director for MoDOT. Mr. Sampson began by saying that public meetings such as the one we were having this evening are an important part of the pre-negotiation process. They allow property owners to become informed generally and enable MoDOT to begin to understand local issues.

Once MoDOT begins to understand the precise right-of-way that is needed, it initiates an initial relocation contact with property owners followed by the appraisal process. Certified appraisers contact property owners and ask for permission to inspect their property. Owners are invited and encouraged to go along for this step since they know more about their property than anyone else. The appraisers will then do an appraisal, an estimate of value, of the “before” and the “after” values of property taking into consideration land prices and any damages that might occur as a result of MoDOT’s actions. Damages might be such things as loss of access, proximity damage to improvements, fencing acquired or reduced parking. Once all these calculations are made the property owner is offered the difference between the before value and the after value. That appraisal is then reviewed by a chief appraiser in each district for consistency and fairness. Once the appraisal has been completed and reviewed, a negotiator contacts the property owner. He or she will probably be a senior right-of-way specialist or right-of-way specialist. That individual will make an offer in writing and attempt to explain all the details. At that time if the property owner feels that the appraisal has missed something it is important to explain why as the negotiator acts as a liaison between MoDOT and the property owner. Mr. Sampson added that there are also provisions for relocation assistance such as down payment assistance and rental subsidy payments in certain cases for renters. For businesses there are fundamentally two avenues: 1) relocation assistance or 2) a fixed payment based on average annual net earnings. Additional detail is contained in the pamphlet that was distributed and in additional written information available on request.

In response to a question Mr. Sampson said that acquisition begins several years in advance of construction once three conditions are met: 1) the environmental study is approved to a point that it is clear that major environmental problems do not affect the parcels being acquired, 2) right-of-way plans have been approved, and 3) MoDOT has money programmed in that fiscal year to buy right-of-way.

NEXT STEPS

Several next steps in the planning process, especially as they involve the Advisory Group, were discussed.

- It was noted there is a public workshop in December.
- Over the next couple of months, the team will develop hybrid alternatives and refine the concepts developed to date.
- It is proposed that the Advisory Group meet in early February. At this meeting, Mr. Desai indicated they will have several proposed reasonable options, including the hybrid alternative(s) and preferred interchange locations. He expects some unanswered questions to remain about Stadium and 63.
- It is proposed that there be a meeting with the Advisory Group in March to review the preferred alternative and describe the EIS process in some detail.
- After the March meeting, the draft environmental document will be circulated for public and agency comment.
- A public hearing is anticipated in late April or early May.
- The current plan is to have a final Advisory Group meeting around July to review comments received and the proposed responses to the comments and where the process goes from that point forward.
- The study itself is expected to be complete in November 2004.

After hearing these future expectations the Advisory Group spent some time reviewing and discussing a set of questions about the I-70 project. These questions, once answered, will be used as a communication vehicle to allow many in the community to have access to straightforward responses to key questions about the process to improve I-70. The goal is to have a mixture of questions, from the basic to the most sensitive that the Advisory Group thinks ought to be raised and answered. A preliminary list of questions was sent to the Advisory Group ahead of the meeting and the Group was asked to critique the list, suggesting additions, deletions, or refinements. Some suggestions included:

- What steps are being taken to alleviate local traffic in the I-70 corridor?
- How is truck traffic being addressed?
- Has the need for this project been truly demonstrated?
- What is the process for revisiting the environmental document or Record of Decision over time? (Mr. Desai noted that it is typical to review the environmental document and prepare a supplemental EIS, though not necessarily the ROD, every three years or if there has been a significant intervening event that might have changed the analysis or its conclusions).
- What is the total cost impact to the community, including the economic impact to local businesses and the fiscal impact to local governments, under each alternative?
- Have alternative approaches for funding this project (such as toll roads) been explored?
- How are neighborhoods going to be impacted and what are their remedies (similar to question #14)? And, how can this information best be shared with those who live in the area?
- How will the construction of I-70 impact cross-state traffic?

It was also mentioned that responses to these questions, and those on the previously developed list, should be clear and succinct and identify how the information was developed.

UPCOMING ADVISORY GROUP MEETING

Thursday, February 5th, 2004
4:00 – 6:30 pm

Columbia Activity and Recreation Center
1701 West Ash Street

Agenda

IMPROVE I-70 ADVISORY GROUP

Meeting 9
4:00-6:30 p.m.
November 20, 2003

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

Meeting Goals: 1) Hear the preliminary findings of the business survey; 2) Understand the analytical refinements of the concepts and alignments under consideration; 3) Clarify the process and timing to reach a preferred alternative; 4) Explain the property acquisition process used by MoDOT; 5) Identify desired role for the Advisory Group over the next several months.

- 4:00 Convene Meeting**
The Osprey Group
- 4:05 Updates**
The Osprey Group
- 4:15 Business Survey Preliminary Findings**
Gary Vandelight, The Louis Berger Group
- 4:30 The Refined Alignments and Concepts**
Kevin Nichols and Buddy Desai, CH2MHill
- 5:40 Developing the Reasonable Range of Alternatives**
Buddy Desai, CH2MHill
- 5:55 Property Acquisition Process**
Terry Sampson, MoDOT
- 6:15 Closing and Next Steps**
The Osprey Group
- 6:30 Adjourn**



COLUMBIA - AREA BUSINESS SURVEY

November 20, 2003 Update

GOAL OF SURVEY

To support the environmental studies and screening of alternatives and to gather information on local businesses that may face partial or full displacement and/or may experience access changes. The business survey seeks information on the background of businesses, employment at the facilities, location and site selection issues, access and parking needs, and individual concerns. ***The survey can be used by the local planning and the economic development community to understand the needs, requirements and preferences of local businesses and develop responsive land use strategies to minimize the adverse effects of displacements and relocation.***

SURVEY STATUS – Still Collecting and Tabulating

▪ Business properties identified	326
▪ Business owners receiving surveys	235
▪ Telephone contacts made	1,175
▪ Business surveys sent to corporate offices (not yet returned)	17
▪ Face to face contacts/visits	76
▪ Business owners interviewed	67
▪ Business surveys returned to date (11/17/03)	102

HIGHLIGHTS/CHALLENGES IN SURVEY-TAKING

1. The uncertainty of the project ever happening because of funding constraints caused several businesses to question whether to spend their time on the survey.
2. The “Drop-in” Center Event conveyed the seriousness of the survey to the business community and became a watershed moment for the survey process, making it easier to schedule interviews.
3. Business owners cited the need for running their business as one reason for their reluctance to participate in the survey. Pre-screening to identify appropriate contacts was hampered by voice-mail and corporate “gate-keepers”.

KEY TAKEAWAY MESSAGES – PRELIMINARY

1. Several businesses registered concern regarding the lack of suitable relocation sites near I-70 -- which are the most desired sites for businesses. ***Key challenges for City and County are to identify and convey suitable alternative locations for these businesses against a backdrop of rising property values.***
2. Concern was registered about the temporary business impacts from loss of access and traffic disruptions (i.e., restaurants) during construction.
3. Adequate notice will be needed to prepare businesses for displacement and relocation.
4. Business community accepts the need for I-70 improvements yet is hopeful that potential impacts will be minimized to their business.

USE OF SURVEY IN STUDY PROCESS

1. Results of the survey will be used to better describe the business community in the “Affected Environment” section of the environmental impact statement (Chapter 3).
2. Site-specific data on the parcels within the study area will provide important information to the project team as they craft and refine improvement alternatives – allowing the team to avoid, minimize, or mitigate impacts to the extent possible. The usually anonymous buildings on the mapping are imbued with greater meaning, at an early stage in the engineering process.
3. The survey will assess whether businesses are prepared to relocate within the region or whether the project will cause irreplaceable losses to the business community of Columbia-Boone County. This will help the study team assess whether business impacts are significant, negative and avoidable. The survey will also identify relocation needs, allowing other appropriate agencies to develop plans to meet those needs.
4. The survey will be a useful component in the project's public involvement process. The methodology of the survey involves determining the proper recipient; this personal contact will bring people into the dialog, who might not otherwise become involved.

NEXT STEPS

1. Finalize data collection / target non-respondents to extent possible
2. Finalize tabulation and analysis
3. Prepare summary report and distribute to MoDOT, City/County partners and Advisory Group
 - Sample Output: business size, site preferences and needs by business type
 - Sample Output: number and type of businesses not prepared to relocate

QUESTIONS ABOUT I-70 IMPROVEMENTS IN THE COLUMBIA AREA
(For Advisory Group Discussion on November 20th)

1. Why is this study being conducted?
2. When can we expect construction to improve I-70 to begin and how long will construction take?
3. How will this project be funded? What are the estimated costs of the whole project?
4. What is the priority of Columbia in the context of a statewide construction schedule and how are construction priorities going to be determined?
5. It seems like expanding I-70 in its current location fails to recognize the growth that is occurring north of Columbia. Wouldn't a more strategic, longer-range solution be to develop a bypass that accommodates future growth?
6. Given what would seem like a major disruption to businesses along the interstate with similarly large declines in tax revenue, why doesn't a separate bypass make more sense for this community?
7. Would the existing interstate need to be expanded if there is a separate bypass?
8. How have the City of Columbia, Boone County and other local governmental units been involved in this planning process? How will they be involved in the future?
9. What opportunities have there been for the community to be involved and provide input? And, does the community input matter?
10. What are the most significant environmental and social impacts associated with this improvement?
11. What provisions are being made for pedestrian and bicycling access?
12. How about aesthetics? Are there funds to assure that the new facilities are visually appealing and convey an image of quality and progressiveness we want in Columbia?
13. What have you learned so far from the business survey and how will this information influence your planning?
14. What happens to residents or businesses that are seriously impacted by this construction and expansion of I-70?
15. How are decisions related to I-70 and those related to the possible interchange west of Stadium being coordinated and integrated?
16. What will happen next in the study?

PRELIMINARY EVALUATION MATRIX SUMMARY

Improve I-70: Columbia Area (SIU #4)

20-Nov-03

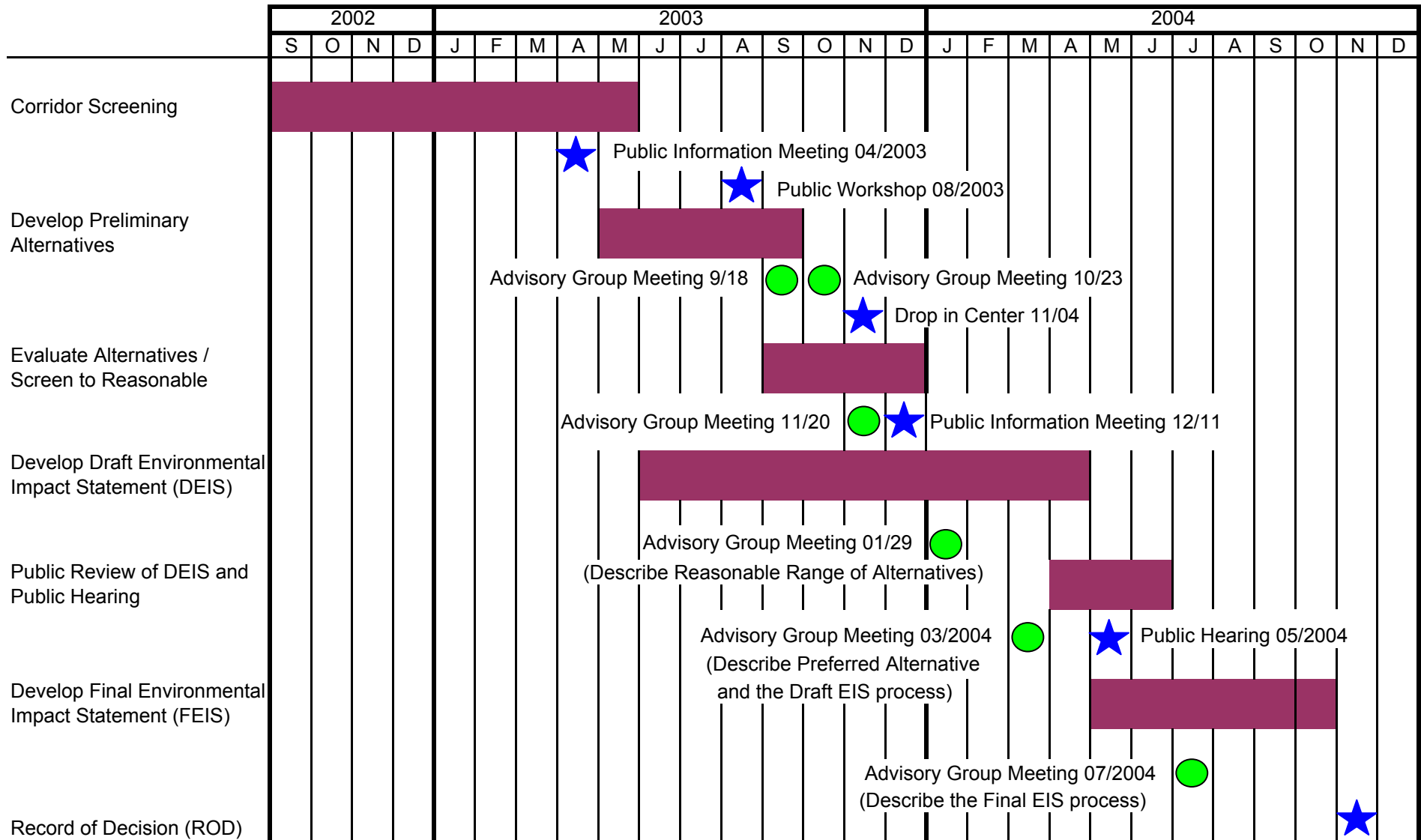
EVALUATION FACTORS/PRELIMINARY ALTERNATIVES	Concept				
	1	2	3	4	5
	Basic Widening	One-Way Frontage Road	Two-Way Frontage Road	Collector-Distributor Road	Stacked Highway
PURPOSE AND NEED					
1. Accommodate existing and future traffic volumes on I-70					
-Increase capacity to 6-lanes in rural/8-lanes in urban areas	+	+	+	+	0
-Meet highway Level of Service guidelines (volume/capacity)	+	+	+	+	+
-Flexibility for future expansion in the corridor	0	0	+	+	-
2. Improve existing I-70 deficiencies					
-Uncorrectable design elements associated with Concept	0	+	+	+	0
3. Implement a better strategy for accommodating all users of I-70					
-Make provisions for all major I-70 traffic streams	-	0	+	+	+
-Implement interchange designs with acceptable Level of Service	+	+	+	+	0
-Maintain Columbia-area access points	-	0	+	+	0
4. Improve user safety					
-Comply with MoDOT Access Management guidelines	-	+	+	+	-
-Effectively manage truck traffic	-	0	0	+	0
-Eliminate identified crash precursors	0	0	+	+	0
ENVIRONMENTAL IMPACTS					
Avoid Section 4(f) sites like Cosmo Park, other parks, historic sites	-	-	-	-	-
Total expected Phase I Environmental Site Assessments	0	0	0	0	0
Avoid prime farmland parcels	0	0	0	0	0
Avoid impacts to the "waters of the United States"	0	0	0	0	0
Avoid impacts to threatened and endangered species	-	-	-	-	-
Avoid noise impacts	0	0	0	0	-
Avoid cultural resource impacts (e.g. sites on Historic Register)	0	0	0	0	0
LAND USE IMPACTS					
Business displacements	0	+	-	-	0
Business access impacts	-	0	+	+	-
Residential displacements	+	+	-	-	0
Residential access impacts	-	0	+	+	-
Secondary impacts	0	0	0	0	0
SOCIO-ECONOMIC/COMMUNITY IMPACTS					
Expected travel pattern disruptions	-	0	+	+	-
Visual impacts	0	0	0	0	-
Potential for Environmental Justice issues	0	+	+	+	0
Potential for community service disruptions (EMS, fire, police)	-	0	+	+	-
Expected neighborhood/community values impacts	0	0	+	+	-
ENGINEERING					
Estimated construction cost	+	0	0	0	-
Total estimated Right-of-Way (ROW)	+	+	-	-	0
Constructibility	0	0	0	+	-
Maintenance of traffic	0	0	0	+	-
Displacements	+	+	-	-	0
Other engineering-related constraints	0	0	0	0	-

Legend

Positive Impact - Important Decision-Making Factor	+
Neutral/Unclear/Contradictory Impact	0
Negative Impact - Important Decision-Making Factor	-



I-70 Columbia Project Schedule



IMPROVE I-70 ADVISORY GROUP
Columbia, MO
January 29, 2004

- Craig Adams
Parkade Neighborhood
- Bernie Andrews
Regional Economic
Development, Inc.
- Ed Baker
Holiday Inn Executive Center
- Jeff Barrow
Greenbelt Coalition
- Bob Bechtold
Midway Travel Plaza
- Elaine Blodgett
League of Women Voters
- Susan Clark
Diversified Management
- Chip Cooper
PedNet
- Skip Elkin
District II Commissioner
- Dave Griggs
CarpetMax Flooring
- Chris Janku
Councilman, City of Columbia
- Kory Kaufman
Boone County Resident
- David Mink, P.E.
Director of Public Works
Boone County
- Tom Moran
Sierra Club
- Larry Moore
Boone Quarries
- Mike Morgan
Mike Morgan Restaurants, Inc.
- James E. (Bud) Moulder
Retired Professional Engineer
- Lowell B. Peterson
Director of Public Works
City of Columbia
- Justin Perry
Perry Chevrolet
- Pat Smith, Chair
Boone County Planning and
Zoning Commission
- Lorah Steiner
Convention and Visitor's Bureau
- Garry Taylor, Director
Mid-Missouri Regional Planning
Commission
- Bob Walters
Virtual Realty

January 29, 2004

Meeting Summary

IMPROVE I-70 ADVISORY GROUP

10th Meeting

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

February 5, 2004

This is a summary of the key informational and action items from the tenth meeting of the Improve I-70 Advisory Group.

GENERAL

Members Present: Craig Adams, Jeff Barrow, Elaine Blodgett, Susan Clark, Dave Griggs, Chris Janku, David Mink, Larry Moore, Lowell Patterson, Pat Smith and Bob Walters.

Dennis Donald and John Huyler of The Osprey Group facilitated the meeting.

Materials Available at the Meeting

In addition to the agenda, materials, available for discussion at the meeting included:

- An updated Questions and Answers sheet
- A handout about the results of the Business Survey
- A handout on Level of Service (LOS)

Meeting Goals

The overall goal for the meeting was to review and reduce the number of reasonable alternatives under consideration. More specifically, goals included: 1) Hear about recent activities and updated material; 2) Understand the methodology being employed to narrow the alternatives; 3) Review the preferred alternative for road and interchange configuration in the less populated areas; 4) Review the reasonable alternatives for the interstate, frontage roads and interchanges in the Columbia core area; 5) Identify next steps in the planning process and development of the Draft EIS.

Preliminary Items

The meeting opened with an explanation about how the consulting team, with Advisory Group and public input, has been engaged in a process of narrowing from conceptual alternatives to options that work. The meeting used maps to focus on locations where the best option seems clear and others where various combinations have different strengths and weaknesses. Throughout the evening, the options were reviewed and reduced so that the

consulting team can focus its attention on the economic, environmental and social aspects of the most promising options in the near future.

Bob Brendel updated the Group on the December public meeting which was attended by about 100 people, the visit of a high-level delegation from Japan that met with Study Team members and several Advisory Group members, and the ongoing efforts to contact and meet with people from the neighborhoods likely to be impacted by the I-70 improvements under discussion.

In an email note to the Osprey Group, Tom Moran, who was unable to attend this evening's meeting, asked that Osprey tell the Group that he has questions and comments about the use of CATSO's background data as the foundation for some of the projections that are being used for traffic in this study. Tom feels that the information is biased, having a pro-development slant to it. Mr. Donald asked if anyone else wanted to comment on this topic and noted that Tom will likely be at the next meeting and can raise the issue again if he wants.

SUMMARY OF ISSUES AND ADVISORY GROUP INPUT

The Reasonable Alternatives: Methodology

Buddy Desai of CH2M Hill reviewed maps the Group had seen previously that contain green checks, red "x's" and level of service information for various intersections. He also recalled the Impact Summary Table for the various alternatives. Mr. Desai said that this table will be expanded based on the Group's input. All of the alternatives under consideration at this time were conceptualized to meet the traffic needs of the project. In order to narrow the alternatives under consideration a large group from the consulting team carefully considers each alternative with the information on the Impact Summary Table and the input provided by the Advisory Group and others from the public. By the March 18th Advisory Group meeting, Mr. Desai said that this review process will eliminate weaker alternatives and the preferred alternatives will remain.

Mr. Kevin Nichols of CH2M Hill then directed the Group's attention to three maps the Group had previously reviewed. These identified three conceptual options: the two-way frontage roads, the one-way frontage roads, and the collector-distributor system. The engineering team has worked to extract the best of each of these concepts to produce reasonable alternatives, that is, alternatives that all work from a traffic perspective.

After explaining that we would come back to the western and eastern portions of the Interstate later in the meeting, Mr. Nichols brought the Group's attention to the four major intersections/sections in the Urban Area. There were six alternatives illustrated with maps for Stadium, two for I-70 West, four in the "triplets" area and two at Highway 63.

Specific Areas

Stadium

Mr. Nichols began the detailed focus on the urban area with Stadium Boulevard which he described as a "stand-alone" location. In other words, "we can take an interchange

configuration there and change it and what happens at Midway or what happens at 70-West won't influence that particular configuration.” Mr. Nichols pointed out that the traffic analysis had found that the intersection of Bernadette and Stadium has the most impact on Stadium’s overall operation so there is a need to divert some of the traffic from Bernadette and Stadium. They considered five possible relief scenarios:

- a base case of doing improvements at Stadium and I-70 only
- an extension to Scott Boulevard that comes through this area and connects to an interchange, somewhere close along I-70
- the idea of putting a brand-new full interchange at Fairview.
- providing ramps only to and from the east, so that they are essentially part of the Stadium interchange itself
- a full Scott interchange, and then, in addition to the Stadium improvements, put ramps to and from the east.

After carefully considering these five possible scenarios to relieve traffic on Stadium the engineering team reached the following conclusions:

- A Scott interchange provides more relief to Broadway than Stadium improvements alone do. It also requires four lanes in each direction on Stadium from Broadway north to the interchange. The southern part of the area in town gets more benefit out of a Scott interchange.
- A Fairview interchange would require three lanes in each direction on Stadium and provide more relief to the Stadium area at the Bernadette intersection and at the ramp terminals of I-70.
- Ramps to and from Stadium take some of the traffic out of this interchange and divert it into Fairview (to and from the east). This provides similar traffic relief to the interchange area and to Bernadette as a full interchange would. It requires only three lanes north of Broadway. A Scott interchange does not provide any benefit to the problems at Stadium. Other alternatives provide better solutions to the operations problems there. Mr. Nichols added, however, that a Scott interchange might provide other benefits to the region of southwest Columbia.
- The Fairview interchange has several considerations. A full interchange at this location may tend to direct more traffic down Fairview which, currently, is a city collector. The City generally likes to have arterials, not collectors, connect to interchanges. Thus Fairview would possibly require a change from collector status to arterial status with the resulting impacts. Having a full interchange very close to Stadium could also be a problem for the FHWA which does not like interchanges that close. In summary, Mr. Nichols pointed out that there is no real traffic benefit to a full interchange at Fairview over the proposal involving ramps to and from the east.

Mr. Nichols concluded by saying that there is additional analysis to be done on the traffic volumes between Broadway and the Stadium connection with I-70, with particular attention to what the impacts are to Fairview.

Mr. Desai closed the discussion of Stadium by stating that as far as the I-70 Study Team is concerned, a Scott interchange is not required. He said that he expects CATSO and the City to continue to at least investigate whether a Scott interchange makes sense to them. He emphasized that the I-70 Study Team will develop a preferred alternative at Stadium with ramps to and from the east at Fairview. Then the Team will determine a line to the west where a new interchange could be built without operational and safety issues.

Mr. Nichols and Mr. Tim Page then focused the Group's attention on the various drawings of configurations for Stadium on the wall. They described the shortcomings of several which were eliminated from further consideration. Four remained. These will be examined in detail over the next several weeks with the goal of returning to the March meeting with one preferred alternative.

I-70 West (Business Loop)

Turning to I-70 West (the Business Loop), Mr. Nichols described the two drawings on the wall. One showed a two-point diamond; the other a three-point diamond. Mr. Nichols described several reasons why the Study Team had decided to eliminate the three-point diamond.

The Triplets (Providence/Range Line/Business Loop East)

Mr. Nichols began by saying that designing for this section the Project Team had done its best to try to reduce negative impacts by compressing the design as much as possible while maintaining operational efficiencies. He described the operations of three designs in some detail and answered questions from the Group about how vehicle movements in various directions could be made.

Route 63

Mr. Nichols described the intersection of Route 63 and I-70 as essentially a free-flowing intersection and that ramps are desirable only to and from the west, not to and from the east, for the interchange and Business 63 to operate properly. He reviewed several options and their respective strengths and weaknesses. At the end, one option was retained for further consideration.

After the preceding overview of the reasonable alternatives, the Advisory Group gathered around the maps for further discussion.

The Group started with questions about the 63 and I-70 interchange and the one option that remained. There was an initial question about access to 63 and whether the consulting team's analysis had been comparable to that conducted for the area around Stadium and Fairview. Mr. Nichols responded that the team had not analyzed the links north and south of the I-70 and 63 interchange to the extent they had reviewed the traffic in and around Stadium.

Mr. Nichols was asked about Federal Highway guidance for the distance between interchanges. He indicated that the general minimum is one mile and they would prefer two miles even in urban areas. It was noted by the Group that, while this might be the standard, it

seemed flexible since the guidance had not been applied in several areas along I-70 in Columbia. Ms. Harvey indicated that, even though there might be exceptions, the standard is more strictly enforced when it comes to construction along the interstate. Mr. Nichols noted that the Federal Highway Administration requires a report that documents impacts to the interstate system and that exceptions may be considered upon demonstration that the modifications will not degrade the system or introduce additional safety problems.

There was some discussion about access to local retailers in the vicinity of I-70 and 63. It was noted that “anything that we can do to keep local traffic off of Interstate 70 and that interchange should be a fairly high priority.” Mr. Nichols remarked that one of the advantages of the alternative under review involves access to the frontage road and the commercial areas without the need to get onto the interstate.

There was a question about how these plans mesh with the work planned for this construction season. Mr. Nichols said that in some cases there has been coordination, but in many ways the team has not progressed to that point yet. His bottom-line was that even with coordination some will “mesh real well; some of it will not mesh real well.” Ms. Harvey said that there are efforts to coordinate current construction and this planning with the hope of being able to use everything that is currently being constructed.

The Group then moved its attention west to what was termed the “triplets” and the two options (one a C-D system and the other relying on one-way frontage roads) that remained in this area.

There was an initial question about what appeared to be a new interchange. Mr. Desai clarified that this involved relocating the Business Loop East interchange, so there is not an additional interchange, but a moved interchange. By moving the interchange better access will be provided to the interstate to and from the west.

Mr. Desai described the differences or tradeoffs between the options. He said that the one-way frontage road provides better access (where allowed) to the abutting properties at slower speeds. The C-D system, on the other hand, provides more safety at higher speeds. The footprint required for either is projected to be about the same.

The Group moved back to some discussion about Fairview and Stadium. There was an initial question about whether local traffic could cross over I-70 at Fairview and avoid having to drive to Stadium. Mr. Nichols said that was not anticipated. He noted that an interchange at Fairview that would allow for this local access would be too close to Stadium. There was a good deal of discussion about the ramps at Fairview and desire for more convenient access to these shopping, school and residential areas without the need to travel to Stadium.

Mr. Dudark noted that some of the difficulties in asking Fairview to accommodate additional traffic are that it was not designed for these volumes. Mr. Desai also commented that the traffic moving from northbound Stadium to westbound I-70 is one of the least frequent movements of all. Another element of connectivity, as noted by Mr. Nichols, is the frontage road across Perche Creek; this is not as high speed as the freeway, but enhances access.

Mr. Desai also mentioned the potential impact on a Scott interchange. If ramps go further to the west from Stadium they could hinder the potential of a Scott interchange because of the location of the ramps and the desire to maintain minimal distances (at least a mile) between interchanges.

Identification of the Reasonable Alternatives for the Western and Eastern Areas

The Group reconvened to hear a presentation and discuss the rural portion of the study area. Mr. Nichols highlighted the recommendations and alternatives on the western and eastern portions of the study area, focusing on J and O, Midway, St. Charles, and Route Z. While there were some alternatives, these areas were generally portrayed as having much more straightforward options than their urban counterparts.

There was some final discussion and concern expressed about the I-70 and 63 interchange and the access to and from the north, south, east and west. It was characterized by one Advisory Group member as perhaps the “elephant in the room” that needs to be recognized. This person hopes that the team is not “ducking” a difficult issue. Another member of the Group echoed these comments saying that she was not sure the proposals were really solving the problems at I-70 and 63.

There was also comment about keeping some of the environmental and social impacts in perspective. A member of the Group indicated that he appreciated that the team was “bending over backwards” for the historical sites, the business and residential communities, and the environment, but suggested not placing such a premium on some of these impacts that we fail to come up with the best long-term solution.

Final Comments from Advisory Group Members

Before addressing expectations and next steps, Advisory Group members had the opportunity to provide closing observations. Highlights included:

- Concern that 63 – I-70 “still looks like a bowl of spaghetti. It looks very confusing.” But, beyond that, “I think we're getting there...”
- An Advisory Group member asked when more data would become available about the number of businesses and residences that might be impacted by the designs still under consideration, noting that, so far, traffic considerations seemed to have been most important. The response was that now is the time, when the options have been narrowed, that the selection of the preferred alternative involves careful consideration of all impacts. The decisions that are made will be explained in detail by referencing the Impact Summary Table at the March meeting. This table with additional categories for analysis will be sent to the Advisory Group prior to the next meeting (although it will not yet include the completed analysis).
- The interstate is basically a barrier that divides the city. What can be done to mitigate that barrier?
- Regarding Stadium, “I don't understand how we've solved that problem to the best that we might be able to... Unless the City, in the future, provides some kind of access out to the west there... Unless another overpass is put in, like a Scott Boulevard overpass... We've, in effect, continued to funnel all that traffic from the northwest and the southwest across I-

70 on that bridge. And that looks to me like a weak point in this design... Maybe it's been handled and I just can't see it... The rest of it looks pretty good to me.”

- After expressing “amazement” in the amount of progress that has been made, one Advisory Group member voiced the concerns many residents have about safety, the amount of their property that might be taken and if or when they should be thinking about moving.
- The progress here has been very good, particularly in the elimination process. The things that have been eliminated have been eliminated for good cause. “Quite frankly, though, I have to admit that I, at this point, have some very serious questions in my mind about the solutions proposed – all four proposed at Stadium.” This member added that the impact of the Stadium alternatives to the city-street system is critical to the City.
- “I think we're headed in the right direction.”

NEXT STEPS

The March 18th meeting was previewed. It was noted that the Group should expect to see the preferred alternative, with one map from east to west, and to hear detail on why it was selected. It was suggested that, given the comments above, considerable attention be given to Stadium and 63, and a description be provided to the Advisory Group about why the identified preferred alternative is best in meeting traffic objectives while minimizing impacts.

UPCOMING ADVISORY GROUP MEETING

Thursday, March 18th, 2004
4:00 – 6:30 pm

Columbia Activity and Recreation Center
1701 West Ash Street
Columbia, Missouri

Agenda

IMPROVE I-70 ADVISORY GROUP

Meeting 10
4:00-6:30 p.m.
February 5, 2004

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

Meeting Goals: 1) Hear about recent activities and updated material; 2) Understand the methodology being employed to narrow the alternatives; 3) Review the reasonable alternatives for the interstate, frontage roads and interchanges in the Columbia core area; 4) Review the reasonable alternatives for road and interchange configurations in the less populated areas; 5) Identify next steps in the planning process and development of the Draft EIS.

4:00 Convene Meeting
The Osprey Group

4:05 Updates
The Osprey Group

- Activities/events
- Updated or new materials

4:20 The Reasonable Alternatives: Methodology
Buddy Desai, CH2MHill

4:30 Identification of the Reasonable Alternatives for the Urban Area
Kevin Nichols and Buddy Desai, CH2MHill

5:50 Identification of the Reasonable Alternatives for the Western and Eastern Areas
Kevin Nichols and Buddy Desai, CH2MHill

6:20 Closing and Next Steps
The Osprey Group

- Advisory Group meeting – March
- Public hearing – expected timeframe (review the preferred alternative)
- Advisory Group meeting – expected timeframe (review comments/responses)

6:30 Adjourn



Frequently Asked Questions December 11, 2003

During the course of the Improve I-70 effort a number of questions have been asked -- and answered. Here is a summary of the most current issues.

1. Why is this study being conducted?

Interstate 70 was designed and built in the late 1950's and early 1960's. It is an outdated facility that no longer efficiently moves cars, trucks and people. To improve it, MoDOT must ensure that dollars spent on improvements today are not wasted tomorrow. The Improve I-70 studies will develop a comprehensive plan for how I-70 will look and operate in the future. The plan will allow MoDOT to make short-term improvements that advance I-70 toward its long-term vision. Additionally, completion of the studies is required by the federal government before design and construction can begin.

2. When can we expect construction to improve I-70 to begin and how long will construction take?

Currently no funding is available to completely design, re-build and widen I-70. However, MoDOT continues to spend what it can to maintain I-70's pavement and bridges, including investing \$87 million in the rural portions of I-70 in the past five years. At a minimum, in the coming years motorists will see continued resurfacing projects and installation of guard cable barriers in the median of rural areas to improve safety.

An interim project at the US 63/I-70 Interchange will begin in the next few months as part of this ongoing maintenance and safety improvement approach.

3. How will this project be funded?

Long-term improvements will require funding beyond MoDOT's current funding levels. A number of implementation plans are being developed based on a variety of funding scenarios. Ultimately, MoDOT will improve I-70 to the extent it can with the funds available. You are encouraged to voice your support for I-70 improvement to lawmakers who represent your area. MoDOT is keeping transportation policy makers informed on the needs of I-70 and encouraging local, state and federal officials to support special funding for I-70 improvements.

4. What are the estimated costs of the entire project?

Cost estimates for this 18-mile stretch of I-70 are being updated now that more detail is beginning to emerge, and will be available next month. More exact estimates will be developed as this study moves to its conclusion.

5. Could I-70 become a toll road to help address I-70 improvement needs sooner?

If tolls were implemented they could generate from 40 percent to 50 percent of the cost to widen I-70. But at the present time, MoDOT does not have the constitutional authority to operate toll roads. A constitutional amendment would have to be approved by the legislature and, ultimately, by the vote of the people. MoDOT's number one legislative priority is seeking tolling authority.

Current federal law does not allow the imposition of tolls on existing interstate highways. Reauthorization of the federal transportation bill, currently underway in Congress, is expected to address this issue, however, since reconstruction of the nation's interstate highway system is a looming issue for all state departments of transportation.

6. What is the priority of Columbia in the context of a statewide construction schedule? How are construction priorities going to be determined?

The statewide construction schedule hasn't been determined yet. Columbia's higher capacity needs, though, would likely make it high on the priority list. Construction priorities will ultimately be based on the needs in the corridor at the time the funding is received, how much the funding amounts to and the time frame surrounding the funding being received.

7. Two of the obvious weaknesses of I-70 currently are how it handles local traffic and interstate truck traffic. How are these problems being addressed in the study?

In the urban area of Columbia, the concepts under consideration include methods to separate local traffic from through traffic. These methods are associated with the type of frontage road system in place. Concepts for this include one-way and two-way frontage roads and a collector-distributor system that would enable local traffic to access local businesses without getting on and off I-70. Each concept has advantages and disadvantages, so engineers are looking at a combination of techniques that moves traffic smoothly with the least amount of impacts.

8. It seems like expanding I-70 in its current location fails to recognize the growth that is occurring north of Columbia. Wouldn't a more strategic, longer-range solution be to develop a bypass that accommodates future growth?

Two northern bypass options were considered and eliminated because they didn't remove enough traffic off of the existing I-70 to solve the capacity problem. The existing route would still have needed more lanes, and as long as improvements had to be made to the existing corridor, it made more sense to invest only in the existing interstate. Future growth north of I-70 may be more appropriately accommodated with an arterial loop such as is on the CATSO long range plan, or through some other local roadway system.

9. Given what would seem like a major disruption to businesses along the interstate with similarly large declines in tax revenue, why doesn't a separate bypass make more sense for this community?

Widening and rebuilding existing I-70 will be disruptive for a short amount of time, but the safety and traffic capacity improvements will be realized for decades. Many of the I-70-area businesses originally located here to attract and serve customers who use

this main thoroughfare, and most want to see it improved so it can bring even more people past their doors. Increased traffic can lead to increased business and tax revenues over the long-term.

10. Would the existing interstate need to be expanded if there is a separate bypass?

Yes. Traffic projections for 2030 indicate that there will still be increased demand for existing I-70 even if a new bypass is built, thus the need to build more highway lanes in the existing corridor.

11. Will the study determine the economic cost to the community during and after construction of lost business and business and residential relocations?

The Improve I-70 Study is determining the character of the business community and how each business might be impacted by I-70's widening. We are identifying who they are, what they do, why they are located along I-70, their number of employees, and whether they would consider re-locating if their business was in the path of the new alignment. The City of Columbia is commissioning an economic impact study to assess the overall economic impact to the community during and after the construction of I-70.

All of this information will be used in evaluating improvement alternatives and refining the preferred alternative to minimize impacts to the area's residences, businesses, and environmental concerns.

12. How have the City of Columbia, Boone County and other local governmental units been involved in this planning process? How will they be involved in the future?

Elected officials and technical experts from the City of Columbia, Boone County and many other organizations, as well as local citizens – those who know this area best -- have been involved in this effort. Traffic forecasts, for example, have used CATSO's traffic model and incorporate the city's and county's land use projections. All parties will continue to play an integral role in the planning process as it moves forward.

13. What opportunities are there for the community to be involved and provide input? And, does the community input matter?

Public input is critical to the success of this project. The public knows this corridor and issues better than anyone. The study team relies on public input to shape, refine and evaluate the alternatives that are being considered. People can get involved by giving us comments tonight, observing the next Advisory Group meeting on February 5th, or leaving comments on the Web site at www.ImproveI70.org. Or they can call our hotline at 1-800-590-0066.

14. What are the most significant environmental and social impacts associated with this improvement?

This effort evaluates impacts to both the human and natural environments. Human environment impacts include residential and business displacements and their economic impacts. Natural environmental impacts include acres of affected wetlands, floodplains, woodlands, parklands (Cosmo Park) and agricultural lands as well as impacts to historic properties and threatened and endangered species, like

the Bristled Cyperus. For more detail on these impacts, please see the Impact Summary Table in your handout packet and posted on the Web at www.ImproveI70.org.

All of this information will be used in evaluating the alternatives and refining the preferred alternative to minimize impacts to the area's residences, businesses, and environmental concerns.

15. What provisions are being made for pedestrian and bicycling access?

MoDOT will make provisions for bike, pedestrian and wheelchair access across I-70 wherever possible and reasonable, but most likely not at every crossing. For example, it's probably not reasonable to provide access on US63 over I-70 due to high traffic volumes and traffic mix.

This study will not determine a specific plan for pedestrian, bicycle and wheelchair access across I-70. However, improvement alternatives being considered will not preclude that access. A more specific access plan will be determined through a later design phase.

16. Are provisions being made to save room for eventual rail service along I-70 some day?

All Improve I-70 studies across the state are using criteria that would enable passenger (not freight) rail service along I-70 to be considered in the future, assuming that type of improvement is appropriate at the time. In the rural areas, the median will be extra wide and the horizontal and vertical alignments would work with passenger rail in the median. However, in urban areas like Columbia and other areas along existing I-70, placing any kind of rail service in the median would not be possible. Instead, rail service would likely leave the I-70 corridor in urban areas and be routed to a community train station that would be easily accessible by all residents. In the event passenger rail service is never the right solution, the wide median in the rural areas could accommodate some other type of transportation improvement as well.

17. What have you learned so far from the business survey and how will this information influence your planning?

Please see the Business Impact Survey Results in your handout packet, or posted at www.ImproveI70.org.

18. Where is information available on how people will be compensated if their property is needed for I-70 improvements? When will such an acquisition process begin?

Property acquisition will not begin until a design phase is complete (which can take several years) and construction funding is in place. At this time, no funding has been allocated for design or construction. Tonight's handout packet and the Improve I-70 website include MoDOT's "Pathways to Progress" brochure, which outlines MoDOT's right of way acquisition policies and procedures. You also may call 1-888-ASK-MODOT to speak to a right of way specialist about your concerns.

19. The decision to widen I-70 seems based on the assumption that long term traffic growth will continue. Does the study consider other scenarios such as

a long term reduction in traffic due to increased oil prices or new technological developments?

Traffic projections for I-70 in 2030 consider estimated population growth, land use changes, and continued demand for roads to get goods to the marketplace and people to jobs. It is also clear that the existing I-70 is already an outdated facility that has difficulty meeting even today's demands. While telecommuting and other technological advances may reduce some travel demand and make future travel more efficient, it is critical that efforts get underway to address existing and future mobility needs.

20. What will happen next in the study?

The Improve I-70 Study Team will evaluate the alternatives based on how well they solve the corridor's operational problems, then compute the impacts to the natural and human environments for those alternatives that solve the operational problems. A preferred alternative for improving I-70 through Columbia will be identified in the Draft Environmental Impact Statement (Draft EIS) when it is published next spring. This document is required by the Federal Highway Administration and the National Environmental Policy Act, and will be made available for public review before a formal public hearing expected in May. Public input received at the hearing will be used to develop a Final EIS next summer, which FHWA will review before issuing a "Record of Decision," hopefully about a year from now. This would be followed by the Missouri Highway and Transportation Commission's approval in late 2004 or early 2005. Should funding be available at that time, this project could move into the final design phase and eventually construction.

21. What is the "shelf life" of the EIS and the decision documents that go with it? How will the EIS be augmented or updated if funding is not available for several years?

After the Federal Highway Administration issues its "Record of Decision" the EIS has a three-year shelf-life if no project development activities (such as plan preparation, right of way acquisition or construction) occur immediately. If no project development occurs within that time but conditions in the I-70 corridor change and/or the project scope changes, before any activity can begin a re-evaluation is required. The Improve I-70 study effort, however, would not have to be completely re-done.

If you have questions or concerns about the study, contact the project office at 1-800-590-0066, or log on to www.ImproveI70.org.





COLUMBIA - AREA BUSINESS SURVEY

February 5, 2004 Update

GOAL OF SURVEY

The improvement of Interstate 70 within its existing corridor will result in the displacement of a number of existing commercial and industrial operations. The business survey was conducted to quantify the nature of these impacts to support the on-going environmental studies and screening of alternatives.

The business survey had two goals:

1. To gather basic demographic information on the nature of the local businesses that may face displacement. This included data such as type/background, employment statistics, location and site selection issues, access needs, parking requirements, and other business-specific concerns.
2. To examine what the relocation strategies would be for individual business operations potentially facing displacement. These included: would the business reopen, where would the business relocate, what criteria would be used to select new sites? This information is assisting the study team assess impacts and helping the local planning and the economic development community understand the needs, requirements and preferences of local businesses so they can develop responsive strategies accordingly.

SURVEY METHODOLOGY

The business survey included both closed and open-ended questions. The pool of businesses selected to participate in the survey were those parcels that fell within a footprint that encompassed all the concepts under consideration. The questionnaire was field-tested by asking the project's Advisory Group to review and answer the survey first. All businesses were then telephoned to identify an appropriate recipient. Interviews were scheduled, if possible. If interviews were not possible, questionnaires were mailed or faxed to interested businesses. To provide the business community with as much information as possible, a "Drop-In" public information event was held where businesses could learn more about the project and talk to the project team directly. Follow-up contacts were made to maximize the response rate. The details of the implementation of the Business Survey are summarized below:

▪ Number of properties on initial business contact list	326
▪ Number of telephone contacts made	1,582
▪ Number of business owners agreeing to receive surveys	235
▪ Number of face to face contacts/visits	213
▪ Number of surveys completed through business owner interviews	79
▪ Total number of Business Surveys completed	123

KEY FINDINGS

- The business community is made up of a diverse mix of businesses. Nearly 60% are single location businesses (no other outlets). Most have fewer than 25 employees.
- Nearly half (49%) of the businesses are less than 10 years old.
- The principal site selection criteria for the existing business location is proximity to local residents and consumers. Three of the top five site selection responses relate to features of I-70 including proximity to I-70, visibility from I-70 and access to I-70.
- Approximately 12% of the responding businesses indicated they may not reopen if they are displaced by the I-70 project.
- Approximately 75% of respondents indicated that if they were required to relocate, they would have difficulty finding a suitable site for their business.
- Approximately 65% of businesses indicated that they would seek a site in the City of Columbia if MoDOT purchased their existing parcel.
- Concern was registered about the temporary business impacts from loss of access and traffic disruptions (i.e., restaurants) during construction.
- Partial property takes and construction-related disruptions could also force businesses to close, but that decision was site-specific and difficult to quantify.
- The hotel/motel, retail trade, automotive sales and rentals, and construction and maintenance sectors exhibited the highest percentage of concern about finding a suitable alternative site. Businesses in existence for more than 10 years exhibited more uncertainty about reopening in the face of displacement.

NEXT STEPS

- Key challenges will be to identify and convey suitable alternative locations for displaced businesses. Adequate timing will be needed to prepare businesses for displacement and relocation.
- The City of Columbia has commissioned a study to further quantify economic impacts during construction and long-term economic benefits.
- Based on survey feedback and other analysis, the Project Team has already reduced and adjusted the footprint of the alternatives to minimize impacts as much as possible.

Level of Service

Level of Service (LOS) is a measure of how effectively a highway can move the volume of traffic it carries. Ranging from LOS A (free-flow conditions) to LOS F (gridlock), the measure takes into account the driver's speed, freedom to maneuver and proximity to other vehicles. See photographs and descriptions to the right.

Of course a highway facility operates at different levels of service at different times of the day. Traffic operations during peak periods like morning and evening rush hour are much different than the middle of the night, for example.

As engineers plan for I-70 improvements, they must determine the number of lanes and basic design needed to reach a **minimum** level of service **during peak periods** in the future. This ensures that traffic operations will be acceptable during the busiest times, but also means traffic will not operate perfectly all the time.

Consider the design of a parking lot at a shopping mall. A properly designed lot would be very congested the morning after Thanksgiving, but traffic would move and spaces would be available – similar to LOS D. On average mornings, there would be very little traffic and spaces would be readily available – similar to LOS A. To design this parking lot for no congestion and ample parking spaces the day after Thanksgiving would not be a wise use of resources and would result in substantial impacts to the surrounding area.

The same concept can be applied in planning and designing roadways. Consistent with standards used throughout the country, the minimum LOS being used for I-70 through Columbia **during peak periods in the future** is C in the rural areas, and D in urban areas. That means during the busiest times, traffic will move well, and at other times it will operate better.

A



Free flow; low volumes and high speeds; most drivers can select their own speed

B



Stable flow; speeds somewhat restricted by traffic; standard LOS used for rural highway design throughout the U.S

C



Stable flow; speed controlled by traffic; standard LOS used for urban highway design throughout the U.S.

D



Approaching unstable flow; lower speeds

E



Unstable flow; low, varied speeds; volumes at or near capacity

F



Forced flow; low speeds to stoppages; volume exceeds capacity

Meeting Summary

IMPROVE I-70 ADVISORY GROUP

11th Meeting

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

March 18, 2004

This is a summary of the key informational and action items from the eleventh meeting of the Improve I-70 Advisory Group.

GENERAL

Members Present: Craig Adams, Bernie Andrews, Bob Bechtold, Elaine Blodgett, Susan Clark, Chip Cooper, Skip Elkin, Dave Griggs, Chris Janku, Kory Kaufman, David Mink, Tom Moran, Lowell Patterson, Pat Smith, Lorah Steiner and Bob Walters

Dennis Donald and John Huyler of The Osprey Group facilitated the meeting.

Materials Available at the Meeting

In addition to the agenda, materials, available for discussion at the meeting, included:

- A welcome sheet for members of the public that explained the Advisory Group format and procedures.
- The updated “Frequently Asked Questions” list.
- The Impact Summary Matrix.
- An overview of the expected schedule for the remainder of the EIS process.
- Maps of the corridor showing remaining alternatives. These had been mailed to the Advisory Group in advance of the meeting.
- A 21-page handout entitled, “Recommended Preferred Alternative.”

Meeting Goals

The overarching goal for this meeting was to hear about and discuss the recommended preferred alternative for improving the I-70 in the Columbia area. Other related goals included:

- 1) Hear about recent activities and updated material;
- 2) Preview the EIS topics and timing;
- 3) Identify and discuss topics of interest from the Advisory Group; and,
- 4) Identify next steps in the planning process.

Preliminary Items

Two items were discussed at the opening of the meeting.

First, Bob Brendel from MoDOT gave the Advisory Group an update about the presentation that had been made to the CATSO Coordinating Committee and the neighborhood meetings that had been held earlier in the month at Sunrise Estates, Parkade, and Whitegate. Over 100 people attended those meetings.

Second, Roy Dudark from the City of Columbia reported on the evolution of the City's economic study which had just begun to incorporate the new "footprint" information as a basis for projecting economic impacts.

SUMMARY OF ISSUES AND ADVISORY GROUP INPUT

Review of Progress to Date

As the Group turned to its substantive work, the "Recommended Preferred Alternative" handout was distributed to everyone present. Buddy Desai from CH2M Hill began with a description of the process to date. He emphasized that as the number of alternatives under consideration narrows the amount of site specific data increases.

Mr. Desai reminded everyone of the corridor screening that had taken place which had eliminated consideration of both the Near North and the Far North conceptual corridors. This had been followed by analysis of five Preliminary Concepts. At the end of that analysis the "Basic Widening" and "Stack Section" concepts had been eliminated, leaving the "One-Way Frontage Roads," "Two-Way Frontage Roads," and "Collector-Distributor" concepts still under consideration.

These three remaining concepts were then subjected to an operational analysis, which focused on travel and access patterns, local connections, access to properties, local road capacity parallel to I-70, freeway access, local versus through traffic, weaving, right-of-way and maintenance. Following this analysis it was concluded that a two-way frontage road system was best for the east and west portions of the corridor and various "hybrids" were developed for the core sections. This "mixing and matching" produced reasonable alternatives that were discussed at the February Advisory Group meeting. These discussions set the stage for this evening's identification and discussion of the Recommended Preferred Alternative.

Before turning to specifics, Mr. Desai also reminded the Group of the public involvement that has occurred so far. He cited 19 public events and emphasized that the community's input about community values, travel desires and environmental concerns has been particularly helpful. He also directed the Group's attention to the Impact Summary Matrix and highlighted several of its components.

The Recommended Preferred Alternative

Mr. Kevin Nichols from CH2M Hill provided an overview of the reasonable and preferred alternatives throughout the Columbia area. During his presentation, he relied on a series of

slides, which had been passed out to Advisory Group members and which summarized the reasonable alternatives that had been under consideration, identified the recommended preferred alternatives, and set forth the key factors that reinforced the decision to select the particular preferred alternative.

Mainline Widening. The first topic was mainline widening.

- Western Columbia. Mr. Nichols started on the western edge of the study area. He indicated that from Route BB to U.S. 40 the reasonable alternative was six lanes with a road median and widening to the south. The recommendation was to stay with that configuration. By widening to the south, there are fewer impacts than with either a symmetrical or northern widening. From U.S. 40 to Stadium, the preferred alternative was eight lanes with an urban median and widening slightly to the south.
- Central Columbia. Between Stadium and 63, the recommended preferred alternative was for eight lanes and an urban median. Generally, the widening would be symmetrical, but this was adjusted to avoid impacts in certain areas. For example, Mr. Nichols said, “We adjusted the centerline between Stadium and 70 West to shift it to the north in order to stay out of the businesses in this area on the south side of the freeway. As you go from 70 West to Garth, as a result of some of our discussions with the Parkade neighborhood, we have shifted this alignment further to the south to stay away from impacting all these residences on the north side.”
- Eastern Columbia. From U.S. 63 to Route Z, the reasonable alternative and preferred alternative was the same. It called for eight lanes with an urban median. The urban median reduces impacts and the symmetric widening reduces construction costs and travel delays.

Mr. Desai commented about the construction timing and scale. He reminded the Advisory Group that even though the preferred alternative calls for eight lanes, the initial construction will be for three lanes in each direction with the additional lanes to be added when necessary and when funding becomes available. The interim construction, however, would be conducted in such a way that the ultimate build out to eight lanes could be accomplished without major disruption.

Interchanges. After some discussion, Mr. Nichols and the Advisory Group turned their attention to interchanges and again discussed them from west to east through the study area. Certain interchanges were relatively straightforward and non-controversial. Others generated more interest and discussion. Some of the highlights included:

- “Western” or Scott Boulevard Interchange. Mr. Nichols cited recent discussions about the possibility of a western interchange or extending Scott Boulevard up to I-70. He indicated that they have completed a fair amount of analysis evaluating the impact of that proposal and how it might improve operations at the Stadium interchange. He commented that Stadium was a problem and that, regardless of the improvements that might be pursued at Stadium, the improvements are projected to be insufficient if they focus on Stadium alone. There is too much traffic for the Stadium interchange to handle now and this is even more the case in the future. Some solution is needed to divert traffic from Stadium. Mr.

Nichols also noted that the controlling intersection is Bernadette, just south of the Stadium interchange. The analysis concluded that while a western interchange would draw some traffic from the Stadium interchange, it would not draw sufficient traffic to solve problems at Stadium.

The team also concluded that ramps to and from the east of a full interchange at Fairview must be part of the solution. Mr. Nichols noted that shifting some traffic to Fairview reduces the load on Stadium and I-70 interchange. With a full interchange at Fairview, there is even more relief for Stadium and more relief at Bernadette. The team plans to examine the impacts of the Fairview interchange options on Fairview itself from I-70 to Broadway.

- Stadium Boulevard. Four reasonable alternatives were presented for Stadium Boulevard. Each involved Fairview as part of the solution. The preferred alternative was for a tight diamond interchange at Stadium with ramps to and from the east at Fairview. The tight diamond has fewer right-of-way impacts and lower construction costs than some of the other interchange options. The land use and traffic projections indicate that some connection at Fairview will be needed in the future. However, the actual construction sequencing would be dependent upon development. Mr. Desai noted that the likely sequence at Stadium is to build the tight diamond interchange soon and only build the Fairview ramps when they become necessary in the future and when there is funding and support for them. The study team, as noted above, plans to evaluate the impacts on Fairview between I-70 and Broadway.
- I-70 Business Loop West. The recommended preferred alternative for Business Loop West is a two-point diamond. But other options remain under consideration and the recommendation is therefore tentative and still under review. This is an awkward area and further examination is focused on more conventional solutions than those originally drawn if they can be made to work. Any changes in the recommendation, however, would not affect those made to the west or east along I-70. Mr. Desai indicated that some resolution about the recommended preferred alternative in this area should be available within about two weeks.
- Routes 163/763/Business Loop East (“Triplets”). In this area, two alternatives were examined – a one-way frontage road system and a collector-distributor (CD) system. The recommended preferred alternative is for the one-way frontage road system. Mr. Nichols noted that there is very little difference between the two in terms of the footprint. Mr. Desai commented that despite the similarities in the footprint, the one-way system did have considerably fewer residential impacts. From an operational perspective, the one-way system was viewed as being more compatible with the interests of the public, City and CATSO priorities, and the desires of MoDOT management. It was recommended that the City, through its economic evaluation, not focus exclusively on the one-way system, but consider the C-D system as a viable alternative as well. The study team, however, will proceed with recommending the one-way system in the draft EIS and will only revisit the issue if the City finds that a C-D system would be more beneficial to Columbia.
- U.S. 63 and Business 63. There are two interchanges in this area. The proposed solution adds ramps so travelers can make direct, no-stop moves between the connector and the

bypass to and from the west. It was noted that 75 percent of the traffic comes to and from the west at I-70. This preferred alternative was chosen because it is a tight configuration minimizing impacts while improving the Business 63 interchange substantially. Mr. Desai noted that only five businesses are impacted within two miles with this proposal. There was a related question about impacts on motels along I-70. The answer to this question was that, throughout the 18-mile stretch, three motels are impacted.

- Eastern Columbia. There are two interchanges in this area, Lake of the Woods and Route Z. Two reasonable alternatives had been proposed for Lake of the Woods and the recommended preferred alternative is a tight diamond interchange. Similarly, for Route Z, there were two reasonable alternatives under consideration and a diamond interchange was recommended as the preferred. It is viewed as a simple design with few negative impacts.

Questions and discussion. An open discussion followed this explanation about the recommended preferred alternatives.

One of the initial questions was about a potential threatened or endangered species. It was noted that this was the Bristled Cypress.

There was a question about how quickly growth was moving toward the east and the adequacy of an interchange, such as that being proposed at Lake of the Woods or Route Z. Mr. Desai responded, saying that the type of problems experienced at 63 would not occur at either of these locations. He indicated that from an access-management standpoint, the interchanges could handle significant future growth in traffic.

A question was raised about roads that are shown on the maps, but do not exist today and whether they are considered part of the I-70 improvement project. The response was that all these roads will be included in the study documentation, but the issue of who pays for the construction will not be addressed in the draft EIS. The focus is on what needs to happen and the nature and magnitude of the impacts.

A follow-up question related to the interdependency of various state and local construction and the fact that the ideal solution would not be possible without a comprehensive plan embraced by various state and local entities. The Stadium interchange was cited as an example. The solution requires local improvements as well as interstate improvements. The response was that, while it is impossible to force such coordination, a good deal of the priority setting conducted by MoDOT relies on what can be built cost-effectively. Historically, MoDOT has funded projects at a 100 percent level, but Ms. Harvey stressed that “the times are changing.” There is a significant trend toward greater cost-sharing of projects and collaborative planning.

It was also reinforced that the recommended preferred alternatives being proposed are ultimate solutions for 2030. In many instances, some sequencing of construction would likely take place that will reduce the amount of financial outlay in the near term.

EIS Preview

Buddy Desai then drew the Advisory Group and the audience's attention to the overview handout about the EIS and noted that he expects that the first draft will be ready sometime in the July time frame. Once the draft is out for review, a 45-day comment period starts. The plan is to have another Advisory Group meeting about this time. The comment period will include an official public hearing, probably in the August time frame. Mr. Desai was encouraged not to schedule the public hearing before the start of school as many families travel out of town in August. Once the public comment is over the draft EIS document is revised and then released for a final review in a 30-day period; this revised version will likely be available in November. The goal is to have the document finalized so that the Federal Highway Administration can publish its Record of Decision (ROD) before the end of 2004. When that happens this phase of the Improve-I70 project will be complete.

General Discussion

Following Mr. Desai's overview discussion began with one Advisory Group member suggesting that in the period between the signing of the ROD and the start of construction, this Group remain informed and be convened if necessary as it represents "such a good cross-section of the community."

A question was asked about sound walls. The answer was that, although general locations for sound walls are identified in this study, precise locations are dependent on the more detailed design that occurs later. In response to a question about enhancements, one Advisory Group member expressed a desire to convene people early to deal with if and how Columbia might secure or commit additional enhancement money. Bob Brendel said he would be glad to meet with more groups on such topics and was only awaiting the invitations.

The Group was asked for any final observations or questions. Some highlights were:

"I thought that we had been through a useful process and that it seems that we have reached a relatively reasonable conclusion."

"I just think you've done a remarkable job with the communication of the information, something that's been a very, very difficult process to try and make simple. You've done a good job."

"I'm also very impressed with the process of eliminating alternatives...looking at all alternatives and coming down to a conclusion... I hope that...they require trucks to just use two of the three lanes... it certainly makes it easier driving. It makes it safer."

"I hope that right-of-way purchase is given top priority."

"I think this has been a great process. It's been a huge learning experience."

"I do have some concerns...One of those is a concern over the validity of extrapolating 30 years out using current projections...in light of current knowledge that gas is expected to hit \$3 a gallon this summer... to suggest that...truck traffic is going to double in 30 years... they

might have to rethink how they do that... Another concern is that perhaps there is too much emphasis on CATSO's desires for what's going on in this area, because CATSO's desires are mainly done without substantial public input or involvement. Another concern would be the lack of true public hearings in the process. We've had lots of public meetings, but the public doesn't get to hear concerns of other members of the public at a public meeting, and that's a very integral part of the governmental decision-making process.”

“I appreciate the work particularly that was done in compressing the footprint near Parkade... I think it's been an excellent process... hopefully, our future public processes in Columbia will benefit from learning from this one.”

“I think that after eliminating one of the bypasses, that this is a good, safe, alternative. It accomplishes...the truck traffic with the other local traffic. I guess some concerns I still have would be the amount of businesses that could be displaced. Where are they going to go? ... I think it's been a good process, and it's been a diverse group, and I appreciate hearing everybody else's interests in the process.”

“And I feel good about the process, and the process, to me, is just as important as the product, and I share their ideas that I hope that it sets as a model for other public input in the community.”

Adjournment

The meeting adjourned with a reiteration of the invitation to members of the public to ask questions of and provide input to the Project Team, which remained available as long as anyone wanted.

NEXT STEPS

UPCOMING ADVISORY GROUP MEETING

TBD
Likely in July

Agenda

IMPROVE I-70 ADVISORY GROUP

Meeting 11
4:00-6:30 p.m.
March 18, 2004

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

Meeting Goals: 1) Hear about recent activities and updated material; 2) Understand and discuss the recommended preferred alternative; 3) Preview the EIS topics and timing; 4) Identify and discuss topics from the Advisory Group; 5) Identify next steps in the planning process.

4:00 Convene Meeting
The Osprey Group

4:05 Updates
The Osprey Group

4:20 Reviewing the Methodology and the Impact Evaluation Matrix
Buddy Desai, CH2MHill

4:40 Identification of the Recommended Preferred Alternative
Kevin Nichols and Buddy Desai, CH2MHill

5:50 EIS Preview: Timing and Content
Buddy Desai, CH2MHill

6:00 Other Questions or Comments: Advisory Group
The Osprey Group

6:25 Closing and Next Steps
The Osprey Group

6:30 Adjourn



WELCOME

I-70 Advisory Group Meeting #11

March 18, 2004

Welcome to tonight's meeting of the Improve I-70 Advisory Group. This meeting will provide the latest information about MoDOT's efforts to plan for the future of I-70, and will include a review of the study team's recommended preferred alternative for the Columbia area.

The attached questions and answers sheet is a good resource for background information about the study and the advisory group. You may also take a copy of the presentation being made tonight.

While members of the public are welcome this evening and at all meetings of the Advisory Group, **no public questions or comments will be taken during the meeting (4:00 to 6:30).** The study team will be on-hand after the meeting until 8:00 p.m. to talk with you and address your concerns. You are welcome to review the maps and other exhibits at that time. We appreciate your cooperation in respecting the Group's meeting process.

As customary, **maps shown at tonight's meeting will be available on the project Web site** at www.ImproveI70.org by the end of the week following the meeting. If you have trouble accessing or printing the maps, you may request an 11x17 copy of the area of interest to you by calling the project hot line at 1-800-590-0066.

This is not the only or last time to provide your opinions about I-70 improvements in Columbia. Official study documentation will be provided later this summer and will be followed by a public hearing to gather input. A notice about these activities will be sent all on the project mailing list. Please remember to sign in to ensure you receive future notices.

Thank you again for your attendance.





Frequently Asked Questions Columbia, Missouri March 18, 2004

During the course of the Improve I-70 effort a number of questions have been asked. Here is a summary of frequently asked questions and the most current issues.

1. Why is this study being conducted?

Interstate 70 was designed and built in the late 1950s and early 1960s. It is an outdated facility that no longer efficiently moves cars, trucks and people. To improve it, the Missouri Department of Transportation (MoDOT) is responsible for ensuring that dollars spent on improvements today are consistent with long-term growth patterns and Missouri needs. The Improve I-70 studies will develop a comprehensive plan for how I-70 will look and operate in the future. The plan will allow MoDOT to make short-term improvements that advance I-70 toward its long-term vision. Additionally, completion of the studies is required by the federal government before more detailed design, and ultimately construction, can begin.

2. When can we expect construction to improve I-70 to begin and how long will construction take?

Currently no funding is available to completely design, rebuild and widen I-70. However, MoDOT continues to spend what it can to maintain I-70's pavement and bridges, including investing \$87 million in the rural portions of I-70 in the past five years. At a minimum, in the coming years motorists will see continued resurfacing projects and installation of guard cable barriers in the median of rural areas to improve safety.

In Columbia, an interim project at the U.S. 63/I-70 interchange has already begun as part of this ongoing maintenance and safety improvement approach.

3. How will this project be funded?

Long-term improvements will require funding substantially beyond MoDOT's current funding levels. A number of implementation plans are being developed based on a variety of funding scenarios. Ultimately, MoDOT will improve I-70 to the extent it can with the funds available. MoDOT is keeping transportation policy makers informed on the needs of I-70 and encouraging local, state and federal officials to support special funding for I-70 improvements.

4. What are the estimated costs of the entire project?

Cost estimates for this 18-mile stretch of I-70 are being updated now that more detail is beginning to emerge. More exact estimates will be developed as this study moves to its conclusion and will be included as part of the Draft Environmental Impact Statement (EIS) expected to be available in summer 2004.

5. Could I-70 become a toll road to help address I-70 improvement needs sooner?

Studies have indicated that if tolls were implemented they could generate from 70 to 90 percent of the cost to widen I-70. But at the present time, MoDOT does not have the constitutional authority to operate toll roads. A constitutional amendment would have to be approved by the legislature and, ultimately, by a vote of the people. Given the importance of the I-70 improvement needs and the shortfall in funding, MoDOT's number-one legislative priority is seeking tolling authority.

Current federal law does not allow the imposition of tolls on existing interstate highways. However, this is a serious impediment for all state departments of transportation. Reauthorization of the federal transportation bill, currently underway in Congress, is expected to address this issue.

6. What is the priority of Columbia in the context of a statewide construction schedule? How are construction priorities going to be determined?

The statewide construction schedule has not been determined. Columbia's higher capacity needs, though, would likely place it high on the priority list. Construction priorities will ultimately be based on the needs in the corridor at the time funding is received, the amount and timing of the funding.

7. Would the existing interstate need to be expanded if there is a separate bypass?

Yes. Building a bypass around Columbia does not move sufficient traffic off the existing interstate. Traffic projections for 2030 indicate that there will be increased demand for existing I-70 even if a new bypass is built, thus the need to build more highway lanes in the existing corridor.

8. The decision to widen I-70 seems based on the assumption that long term traffic growth will continue. Does the study consider other scenarios such as a long term reduction in traffic due to increased oil prices or new technological developments?

Traffic projections for I-70 in 2030 consider estimated population growth, land use changes and continued demand for roads to get goods to the marketplace and people to jobs. It is also clear that the existing I-70 is already an outdated facility that has difficulty meeting even today's demands. While telecommuting and other technological advances may reduce some travel demand and make future travel more efficient, it is critical that efforts get underway to address existing and future mobility needs. While trends might change, recent national traffic trends show that vehicle miles driven are rising faster than population growth and that truck traffic is growing faster than automobile traffic.

9. It seems like expanding I-70 in its current location fails to recognize the growth that is occurring north of Columbia. Wouldn't a more strategic, longer-range solution be to develop a bypass that accommodates future growth?

Two northern bypass options were considered and eliminated because they didn't remove enough traffic off of the existing I-70 to solve the capacity problem. The existing route would still have needed more lanes, and as long as improvements had

to be made to the existing corridor, it made more sense to invest only in the existing interstate and avoid many of the costs and environmental impacts associated with acquiring right-of-way and constructing a bypass. Future growth north of I-70 may be more appropriately accommodated with an arterial loop such as is on the CATSO long range plan, or through some other local roadway system.

10. Two of the obvious weaknesses of I-70 currently are how it handles local traffic and interstate truck traffic. How are these problems being addressed in the study?

In the urban area of Columbia, the alternatives under consideration include methods to separate local traffic from through traffic. These methods are associated with the type of frontage road system in place. Feasible concepts for this include one-way frontage roads or a collector-distributor system for the Rangeline/Providence/Business 70E interchanges. Either of these two systems enables local traffic to access local streets without getting on and off I-70. Each alternative has advantages and disadvantages, so engineers are looking at a combination of techniques that moves traffic smoothly with the least amount of impacts. In addition to the frontage road system, several connections are being made between local streets, such as linking the north and south frontage roads across Perche Creek and extending Clark Lane across I-70 to Business Loop 70.

11. Given what would seem like a major disruption to businesses along the interstate with similarly large declines in tax revenue, why doesn't a separate bypass make more sense for this community?

Widening and rebuilding existing I-70 will be disruptive for a short amount of time, but the safety and traffic capacity improvements will be realized for decades. Many of the I-70-area businesses originally located here to attract and serve customers who use this main thoroughfare, and most want to see it improved so it can bring even more people past their doors. Increased traffic can lead to increased business and tax revenues over the long-term.

12. What are the most significant environmental and social impacts associated with this improvement?

This study evaluates impacts to both the human and natural environments. Human environment impacts include residential and business displacements and their economic impacts. Natural environmental impacts include acres of affected wetlands, floodplains, woodlands, parklands (Cosmo Park) and agricultural lands as well as impacts to historic properties and threatened and endangered species, like the Bristled Cyperus. For more detail on these impacts, please see the Impact Summary Table posted on the Web at www.ImproveI70.org.

All of this information will be used in evaluating the alternatives and refining the preferred alternative to minimize impacts to the area's residences, local businesses, and environmental concerns.

13. What provisions are being made for pedestrian and bicycling access?

MoDOT will make provisions for bike, pedestrian and wheelchair access across I-70 wherever possible and reasonable, but most likely not at every crossing. For example, it is probably not reasonable to provide access on U.S. 63 over I-70 due to high traffic volumes and traffic mix.

This study will not determine a specific plan for pedestrian, bicycle and wheelchair access across I-70. However, improvement alternatives being considered will not preclude that access. A more specific access plan will be developed during a later design phase.

14. My neighborhood hears a lot of noise from cars and trucks on I-70. What provisions are being made for noise walls?

The Improve I-70 Team is completing a sound analysis of the I-70 corridor to measure today's noise levels and forecast how noise might change by the year 2030 due to I-70 widening. This analysis will help the team identify general areas where noise walls might be needed in the future. The team's analysis and recommendations will be included in the study's environmental impact statement.

This study will NOT determine exactly where noise walls could be or what they might look like. Those decisions would be made during a detailed engineering design phase which would follow this study but that is currently unfunded.

During the design phase, MoDOT would use federal and state policies to guide decisions about noise walls. In general, the following criteria must be met before a sound wall can be constructed:

- Noise levels must exceed 65 decibels (the sound of normal conversation three feet away);
- The sound wall must provide noise reduction of at least five decibels for those homes closest to the highway;
- The sound wall must provide decreased noise for more than one home;
- The sound wall cannot be taller than 18 feet;
- The sound wall must not interfere with normal access to the property;
- The sound wall must not pose a traffic safety hazard; and
- The majority of the benefited residents must agree that a sound wall is desired.

For more information on sound walls, visit MoDOT's Web site at www.modot.state.mo.us/local/d6/hottopics/MiscTopics/swbrochure.html.

15. Are provisions being made to save room for eventual rail service along I-70 some day?

All Improve I-70 studies across the state are using criteria that would enable possible passenger (not freight) rail service along I-70 to be considered in the future. In the rural areas, the median will be extra wide and the horizontal and vertical alignments would work with passenger rail in the median. However, in urban areas like Columbia and other areas along existing I-70, placing any kind of rail service in the median would not be possible. Instead, rail service would likely leave the I-70 corridor in urban areas and be routed to a community train station that would be easily accessible by all residents. In the event passenger rail service is not determined to be the right solution, the wide median in the rural areas could accommodate some other type of transportation improvement as well.

16. What kind of enhancements might be included in the new I-70 to make it more visually appealing and pedestrian-friendly?

MoDOT has developed an I-70 Corridor Enhancement Plan to ensure that, to the degree funding allows, major improvements to I-70 are attractive and result in a cohesive “look” across the state. While the plan does not recommend specific enhancements for specific locations, it presents a vision for the future look of the interstate across Missouri and establishes a baseline for the types of enhancements MoDOT will fund.

The plan includes a range of possible enhancements that could be applied along I-70 to complement natural features and enhance the visual quality of the route. Images within the plan show how color, textured surfaces, lighting, landscaping and other decorative features might enhance bridges, retaining walls, railings and other elements of I-70. The plan will be available on the project Web site this spring.

The images in the plan provide a general design direction and serve as a starting point for local discussions about I-70 enhancements. Results of those discussions and any commitments made by MoDOT or local communities will be record in the study’s environmental impact statement (EIS). The EIS will serve as a guide in later, more detailed efforts to determine where and to what degree enhancements will be included in major I-70 improvements.

17. Will the study determine the economic cost to the community during and after construction of lost business and business and residential relocations?

The Improve I-70 Study looked at the character of the business community and how businesses might be impacted by I-70’s widening. In addition, the City of Columbia has commissioned an economic impact study to assess the overall economic impact to the community during and after the construction of I-70. Results are expected later this spring.

All of this information is being used to evaluate improvement alternatives and refine the preferred alternative to minimize impacts to the area’s residences, businesses and environmental concerns.

18. Where is information available on how people will be compensated if their property is needed for I-70 improvements? When will such an acquisition process begin?

Property acquisition will not begin until a design phase is complete (which can take several years) and construction funding is in place. At this time, no funding has been allocated for design or construction. The Improve I-70 website includes MoDOT’s “Pathways to Progress” brochure, which outlines MoDOT’s right of way acquisition policies and procedures. You also may call 1-888-ASK-MODOT to speak to a right of way specialist about your concerns.

19. How have the City of Columbia, Boone County and other local governmental units been involved in this planning process? How will they be involved in the future?

Elected officials and technical experts from the City of Columbia, Boone County and many other organizations, as well as local citizens – those who know this area best – have been involved in this effort. Traffic forecasts, for example, have used CATSO’s traffic model and incorporate the city’s and county’s land use projections. All parties will continue to play an integral role in the planning process as it moves forward. The

study team frequently briefs CATSO about its progress and city and county staff have been continually involved with Study Team planning and with the Columbia Advisory Group, which has met throughout the study.

20. What opportunities are there for the community to be involved and provide input? And, does the community input matter?

Public input is critical to the success of this project. The public knows this corridor and issues better than anyone. The study team relies on public input to shape, refine and evaluate the alternatives that are being considered. In developing the alternatives for I-70, the study team has benefited from input from the Columbia Advisory Group, several neighborhood meetings, multiple open houses, a public workshop and other public input.

People can continue to be involved by giving us comments, attending an Advisory Group meeting, leaving comments on the Web site at www.ImproveI70.org, or calling our hotline at 1-800-590-0066.

21. What will happen next in the study?

The Improve I-70 Study Team will evaluate the alternatives based on how well they solve the corridor's operational problems, then evaluate the impacts to the natural and human environments for those alternatives that solve the operational problems. A preferred alternative for improving I-70 through Columbia will be identified in the Draft EIS. It will be published early this summer. This document is required by the Federal Highway Administration and the National Environmental Policy Act, and will be made available for public review before a formal public hearing expected mid-summer. Public input received at the hearing will be used to develop a Final EIS, which FHWA will review before issuing a "Record of Decision," hopefully by the end of 2004. This will be followed by the Missouri Highway and Transportation Commission's approval in early 2005. Should funding be available at that time, this project could move into the final design phase and eventually construction.

22. What is the "shelf life" of the EIS and the decision documents that go with it? How will the EIS be augmented or updated if funding is not available for several years?

The EIS has a three-year shelf life after the Federal Highway Administration issues its "Record of Decision." If no project development activities such as plan preparation, right of way acquisition or construction occur within that time but conditions in the I-70 corridor change and/or the project scope changes, a re-evaluation is required. The Improve I-70 study effort, however, would not have to be completely re-done.

If you have questions or concerns about the study, contact the project office at 1-800-590-0066, or log on to www.ImproveI70.org.





OVERVIEW

Environmental Impact Statement and Public Hearing – Section 4 (Columbia)

Information gathered and analysis conducted by the Improve I-70 study team in Columbia will be contained in an Environmental Impact Statement (EIS). The document will provide an evaluation of all the reasonable options for widening and rebuilding I-70, and describe how those options might impact the natural and man-made environments.

The document goes through a number of steps before it is finalized. Those steps are defined by federal and state policies, and include an official public hearing and comment period to gather citizen input. Below is an outline of the steps and a targeted timeframe for their completion.

Step	Timeframe	Description
Draft Document Distribution and Comment Period	July 2004	A draft version of the environmental impact statement (DEIS) will be written and circulated to state and federal agencies and public officials. At the same time, copies will be made available for public review at a variety of locations such as libraries and government buildings and on the project Web site. Anyone can review and comment on the draft during a specified period that lasts at least 45 days.
Official Public Hearing	August 2004	About three weeks after the draft document has been available for review, an official public hearing will be held to gather citizen's comments.
Final Document Development	September-November 2004	After the review period ends, the study team will assess all substantive comments submitted by the public and government review agencies and begin work on the Final Environmental Impact Statement (FEIS). The FEIS is basically an update of the draft version and includes the substantive comments and the results of any additional evaluations or analyses performed in response to those comments.
Final Document Distribution	November 2004	The FEIS is provided to the same state and federal agencies, public officials and public locations that received the draft, and is posted on the project Web site. The final document will confirm the preferred alternative and will serve as the basis for future actions related to I-70 improvements.
Document Approval	December 2004	The Federal Highway Administration has responsibility for approving the FEIS. After the FEIS is circulated the agency will publish a Record of Decision (ROD). This ROD announces the selected alternative for the I-70 improvements which then can proceed to the next phases of development – design, right of way acquisition and construction (all dependent on funding availability).



Frequently Asked Questions Columbia, Missouri June 30, 2004

During the course of the Improve I-70 effort a number of questions have been asked. Here is a summary of frequently asked questions and the most current issues.

1. Why is this study being conducted?

Interstate 70 was designed and built in the late 1950s and early 1960s. It is an outdated facility that no longer efficiently moves cars, trucks and people. To improve it, the Missouri Department of Transportation (MoDOT) is responsible for ensuring that dollars spent on improvements today are consistent with long-term growth patterns and Missouri needs. The Improve I-70 studies will develop a comprehensive plan for how I-70 will look and operate in the future. The plan will allow MoDOT to make short-term improvements that advance I-70 toward its long-term vision. Additionally, completion of the studies is required by the federal government before more detailed design, and ultimately construction, can begin.

2. When can we expect construction to improve I-70 to begin and how long will construction take?

Currently no funding is available to completely design, rebuild and widen I-70. However, MoDOT continues to spend what it can to maintain I-70's pavement and bridges, including investing \$87 million in the rural portions of I-70 in the past five years. At a minimum, in the coming years motorists will see continued resurfacing projects and installation of guard cable barriers in the median of rural areas to improve safety.

In Columbia, an interim project at the US 63/I-70 Interchange is underway as part of MoDOT's ongoing maintenance and safety improvement approach.

3. How will this project be funded?

Long-term improvements will require funding substantially beyond MoDOT's current funding levels. A number of implementation plans are being developed based on a variety of funding scenarios. Ultimately, MoDOT will improve I-70 to the extent it can with the funds available. MoDOT is keeping transportation policy makers informed on the needs of I-70 and encouraging local, state and federal officials to support special funding for I-70 improvements.

4. What are the estimated costs of the entire project?

Cost estimates for this 18-mile stretch of I-70 will be developed as this study moves to its conclusion and will be included as part of the Draft Environmental Impact Statement (EIS) expected to be available in fall 2004.

5. Could I-70 become a toll road to help address I-70 improvement needs sooner?

Studies have indicated that if tolls were implemented they could generate from 70-90 percent of the cost to widen I-70. But at the present time, MoDOT does not have the constitutional authority to operate toll roads. A constitutional amendment would have to be approved by the legislature and, ultimately, by a vote of the people. Given the importance of the I-70 improvement needs and the shortfall in funding, MoDOT's number-one legislative priority is seeking tolling authority.

Current federal law does not allow the imposition of tolls on existing interstate highways. However, this is a serious impediment for all state departments of transportation. Reauthorization of the federal transportation bill, currently underway in Congress, is expected to address this issue.

6. What is the priority of Columbia in the context of a statewide construction schedule? How are construction priorities going to be determined?

The statewide construction schedule has not been determined. Columbia's higher capacity needs, though, would likely place it high on the priority list. Construction priorities will ultimately be based on the needs in the corridor at the time funding is received, the amount and timing of the funding.

7. The decision to widen I-70 seems based on the assumption that long term traffic growth will continue. Does the study consider other scenarios such as a long term reduction in traffic due to increased oil prices or new technological developments?

Traffic projections for I-70 in 2030 consider estimated population growth, land use changes, and continued demand for roads to get goods to the marketplace and people to jobs. It is also clear that the existing I-70 is already an outdated facility that has difficulty meeting even today's demands. While telecommuting and other technological advances may reduce some travel demand and make future travel more efficient, it is critical that efforts get underway to address existing and future mobility needs. While trends might change, recent national traffic trends show that vehicle miles driven is rising faster than population growth and that truck traffic is growing faster than automobile traffic.

8. Would the existing interstate need to be expanded if there is a separate bypass?

Yes. Building a bypass around Columbia does not move sufficient traffic off the existing interstate. Traffic projections for 2030 indicate that there will be increased demand for existing I-70 even if a new bypass is built, thus the need to build more highway lanes in the existing corridor.

9. It seems like expanding I-70 in its current location fails to recognize the growth that is occurring north of Columbia. Wouldn't a more strategic, longer-range solution be to develop a bypass that accommodates future growth?

Two northern bypass options were considered and eliminated because they didn't remove enough traffic off of the existing I-70 to solve the capacity problem. The existing route would still have needed more lanes, and as long as improvements had to be made to the existing corridor, it made more sense to invest only in the existing interstate and avoid many of the costs, financial and other, associated with acquiring

right-of-way and constructing a bypass. Future growth north of I-70 may be more appropriately accommodated with an arterial loop such as is on the CATSO long range plan, or through some other local roadway system.

- 10. Two of the obvious weaknesses of I-70 currently are how it handles local traffic and interstate truck traffic. How are these problems being addressed in the study?**

In the urban area of Columbia, the alternatives under consideration include methods to separate local traffic from through traffic. These methods are associated with the type of frontage road system in place. Feasible concepts for this include one-way frontage roads or a collector-distributor system for the Rangeline/Providence/Business 70E interchanges. Either of these two systems enables local traffic to access local streets without getting on and off I-70. Each alternative has advantages and disadvantages, so engineers are looking at a combination of techniques that moves traffic smoothly with the least amount of impacts. In addition to the frontage road system, several connections are being made between local streets, such as linking the north and south frontage roads across Perche Creek and extending Clark Lane across I-70 to Business Loop 70.

- 11. Given what would seem like a major disruption to businesses along the interstate with similarly large declines in tax revenue, why doesn't a separate bypass make more sense for this community?**

Widening and rebuilding existing I-70 will be disruptive for a short amount of time, but the safety and traffic capacity improvements will be realized for decades. Many of the I-70-area businesses originally located here to attract and serve customers who use this main thoroughfare, and most want to see it improved so it can bring even more people past their doors. Increased traffic can lead to increased business and tax revenues over the long-term.

- 12. Why are the ramps with Fairview needed at the Stadium Boulevard Interchange?**

The study team has conducted an extensive evaluation of the Stadium Boulevard Interchange. They quickly found that focusing improvements only at Stadium would have significant impacts to Cosmo Park and area businesses. The team considered a new interchange west of Stadium (Scott Boulevard extension) and found that while that interchange would provide some regional benefits, it would not significantly improve conditions at Stadium.

The two main issues contributing to Stadium's operational problems are the close location of the Bernadette intersection and the high volume of traffic coming from and going to the east. The team found that providing ramps at Fairview would improve conditions at I-70 / Stadium and at Bernadette.

- 13. Won't the ramps at Fairview increase the traffic into a residential neighborhood?**

Traffic on Fairview will increase in the future with or without a connection to I-70. The increase is projected to be enough that four lanes will be needed on Fairview between I-70 and Broadway. So while the connection to I-70 will increase traffic, it will not be significantly higher than what the City already anticipates in the future.

14. Have area developers had influence in the recommendations for the Stadium Boulevard Interchange and the connection at Fairview?

The Study Team's recommendations for Stadium Boulevard are based on the City of Columbia's land use projections, not on the plans of any particular developer or development. In fact, the study was considering (and publicly showed) connections at Fairview last summer, well before the recent news about a potential Walmart at Fairview.

15. What are the most significant environmental and social impacts associated with I-70 improvements in Columbia?

This study evaluates impacts to both the human and natural environments. Human environment impacts include residential and business displacements and their economic impacts. Natural environmental impacts include acres of affected wetlands, floodplains, woodlands, parklands (Cosmo Park) and agricultural lands as well as impacts to historic properties and threatened and endangered species, like the Bristled Cyperus. For more detail on these impacts, please see the Impact Summary Table posted on the Web at www.ImproveI70.org. Click on Local Focus / Section 4 / Maps and Graphics.

All of this information will be used in evaluating the alternatives and refining the preferred alternative to minimize impacts to the area's residences, local businesses, and environmental concerns.

16. What provisions are being made for pedestrian and bicycling access?

MoDOT will make provisions for bike, pedestrian and wheelchair access across I-70 wherever possible and reasonable, but most likely not at every crossing. For example, it is probably not reasonable to provide access on U.S. 63 over I-70 due to high traffic volumes and traffic mix.

This study will not determine a specific plan for pedestrian, bicycle and wheelchair access across I-70. However, improvement alternatives being considered will not preclude that access. A more specific access plan will be developed during a later design phase.

17. My neighborhood hears a lot of noise from cars and trucks on I-70. What provisions are being made for noise walls?

The Improve I-70 Team is completing a sound analysis of the I-70 corridor to measure today's noise levels and forecast how noise might change by the year 2030 due to I-70 widening. This analysis will help the team identify general areas where noise walls might be needed in the future. The team's analysis and recommendations will be included in the study's environmental impact statement.

This study will NOT determine exactly where noise walls could be or what they might look like. Those decisions would be made during a detailed engineering design phase which would follow this study but that is currently unfunded.

During the design phase, MoDOT would use federal and state policies to guide decisions about noise walls. In general, the following criteria must be met before a sound wall can be constructed:

- Noise levels must exceed 65 decibels (the sound of normal conversation three feet away);
- The sound wall must provide noise reduction of at least five decibels for those homes closest to the highway;
- The sound wall must provide decreased noise for more than one home;
- The sound wall cannot be taller than 18 feet;
- The sound wall must not interfere with normal access to the property;
- The sound wall must not pose a traffic safety hazard; and
- The majority of the benefited residents must agree that a sound wall is desired.

For more information on sound walls, visit MoDOT's Web site at www.modot.state.mo.us/local/d6/hottopics/MiscTopics/swbrochure.html.

18. Are provisions being made to save room for eventual rail service along I-70 some day?

All Improve I-70 studies across the state are using criteria that would enable possible passenger (not freight) rail service along I-70 to be considered in the future. In the rural areas, the median will be extra wide and the horizontal and vertical alignments would work with passenger rail in the median. However, in urban areas like Columbia and other areas along existing I-70, placing any kind of rail service in the median would not be possible. Instead, rail service would likely leave the I-70 corridor in urban areas and be routed to a community train station that would be easily accessible by all residents. In the event passenger rail service is not determined to be the right solution, the wide median in the rural areas could accommodate some other type of transportation improvement as well.

19. What kind of enhancements might be included in the new I-70 to make it more visually appealing and pedestrian-friendly?

MoDOT has developed an I-70 Corridor Enhancement Plan to ensure that, to the degree funding allows, major improvements to I-70 are attractive and result in a cohesive "look" across the state. While the plan does not recommend specific enhancements for specific locations, it presents a vision for the future look of the interstate across Missouri and establishes a baseline for the types of enhancements MoDOT will fund.

The plan includes a range of possible enhancements that could be applied along I-70 to complement natural features and enhance the visual quality of the route. Images within the plan show how color, textured surfaces, lighting, landscaping and other decorative features might enhance bridges, retaining walls, railings and other elements of I-70. The plan will be available on the project Web site this spring.

The images in the plan provide a general design direction and serve as a starting point for local discussions about I-70 enhancements. Results of those discussions and any commitments made by MoDOT or local communities will be record in the study's environmental impact statement (EIS). The EIS will serve as a guide in later, more detailed efforts to determine where and to what degree enhancements will be included in major I-70 improvements.

20. Will the study determine the economic cost to the community during and after construction of lost business and business and residential relocations?

The Improve I-70 Study looked at the character of the business community and how businesses might be impacted by I-70's widening. In addition, the City of Columbia has commissioned an economic impact study to assess the overall economic impact to the community during and after the construction of I-70. Results are expected later this spring.

All of this information is being used to evaluate improvement alternatives and refine the preferred alternative to minimize impacts to the area's residences, businesses and environmental concerns.

21. Where is information available on how people will be compensated if their property is needed for I-70 improvements? When will such an acquisition process begin?

Property acquisition will not begin until a design phase is complete (which can take several years) and construction funding is in place. At this time, no funding has been allocated for design or construction. The Improve I-70 website includes MoDOT's "Pathways to Progress" brochure, which outlines MoDOT's right of way acquisition policies and procedures. That brochure can be found at www.ImproveI70.org. Click on "The Facts" then on "FAQs" to find a link to the brochure at the bottom of the page. You also may call 1-888-ASK-MODOT to speak to a right of way specialist about your concerns.

22. How have the City of Columbia, Boone County and other local governmental units been involved in this planning process? How will they be involved in the future?

Elected officials and technical experts from the City of Columbia, Boone County and many other organizations, as well as local citizens – those who know this area best – have been involved in this effort. Traffic forecasts, for example, have used CATSO's traffic model and incorporate the city's and county's land use projections. All parties will continue to play an integral role in the planning process as it moves forward. The study team frequently briefs CATSO about its progress and city and county staff have been continually involved with Study Team planning and with the Columbia Advisory Group, which has met throughout the study.

23. What opportunities are there for the community to be involved and provide input? And, does the community input matter?

Public input is critical to the success of this project. The public knows this corridor and issues better than anyone. The study team relies on public input to shape, refine and evaluate the alternatives that are being considered. In developing the alternatives for I-70, the study team has benefited from input from the Columbia Advisory Group, several neighborhood meetings, multiple open houses, a public workshop and other public input.

People can continue to be involved by giving us comments, attending an Advisory Group meeting, leaving comments on the Web site at www.ImproveI70.org, or calling our hotline at 1-800-590-0066.

24. What will happen next in the study?

The Improve I-70 Study Team has evaluated the reasonable alternatives based on how well they solve the corridor's operational problems and how they might impact the natural and human environments. A recommended preferred alternative was displayed at an Advisory Group meeting in March and is displayed on the project Web site. The reasoning behind the recommendation will be detailed in the study's Draft Environmental Impact Statement. This document is required by the Federal Highway Administration and the National Environmental Policy Act, and will be made available for public review, and will be the subject of a formal public hearing expected this fall. Public input received at the hearing will be used to develop a Final EIS, which FHWA will review before issuing a "Record of Decision," hopefully in early 2005. This will be followed by the Missouri Highway and Transportation Commission's approval of the document in 2005. Should funding be available at that time, this project could move into the final design phase and eventually construction.

25. What is the "shelf life" of the EIS and the decision documents that go with it? How will the EIS be augmented or updated if funding is not available for several years?

The EIS has a three-year shelf life after the Federal Highway Administration issues its "Record of Decision." If no project development activities such as plan preparation, right of way acquisition or construction occur within that time but conditions in the I-70 corridor change and/or the project scope changes, a re-evaluation is required. The Improve I-70 study effort, however, would not have to be completely re-done.

If you have questions or concerns about the study, contact the project office at 1-800-590-0066, or log on to www.ImproveI70.org.





MEETING DOCUMENTATION

HNTB
Engineers Architects Planners
715 Kirk Drive
Kansas City, MO 64105-1310
phone: (816) 472-1201
fax: (816) 472-4086

Date: February 27, 2008 **Time:** 4:00 to 5:30 p.m.

Subject: Columbia
Community Advisory Group **Location:** ARC Conference Room
Meeting #1

Meeting Participants	Representing (Agency or Firm)
Bernie Andrews	Regional Economic Development, Inc.
Jeff Barrow	Greenbelt Land Trust
Elaine Blodgett	League of Women Voters
Susan Clark	Diversified Management
Vicky Curby	Columbia Planning and Zoning Commission
Cameron Dunafon	Taco Bell
Praveen Edara	University of Missouri
Chester Edwards	Columbia Public Schools
John Glascock	City of Columbia, Public Works
Dave Griggs	Dave Griggs Flooring America
Christopher Janku	City of Columbia, Councilman
David Mink	Boone County, Public Works
Bob Walters	Virtual Realty
Kenny Voss, Bob Brendel, Kathy Harvey, Kristin Gerber	MoDOT
Buddy Desai	CH2M HILL
Marie Keister	Engage
Steve Wells, Mark Pierson, Michael DeMent, Betty Burry, Gretchen Ivy	HNTB Corporation

Agenda:

- Welcome and introduction conducted by Betty Burry, HNTB
- Self-introductions took place by Advisory Group members
- Meeting agenda reviewed by Betty Burry
 - Community Advisory Group Roles
 - Improve I-70 update
 - Q&A

Advisory Group Role and Responsibilities

Following welcomes and introductions, Ms. Burry and Michael DeMent walked the Advisory Group through a discussion of expectations, roles and responsibilities (please refer to packet handout). Mr. DeMent requested that group members assume the following roles and responsibilities in the EIS process:

- Articulate clearly and candidly the interests they bring to the table;
- Discuss fully their issues and concerns with other group members;
- Seek out and fairly evaluate the opinions and interests of others;
- Provide MoDOT with clear, accurate and actionable feedback about the project; and
- Keep their agencies, organizations or communities accurately informed of the group's work.

I-70 Update

HNTB Project Manager Steve Wells and study team member Buddy Desai provided group members with background information on the Improve I-70 Second Tier Environmental Studies, SIU 4 decisions affecting Columbia, and activities that have taken place since the completion of the Second Tier Study in Columbia in 2005.

Mr. Desai presented a review of the decisions and recommendations that emerged from the Second Tier Environmental Study through Columbia. The presentation included examples of typical sections for the Preferred Alternative through the city. Following Mr. Desai's portion of the presentation, John Glascock asked how Mr. Desai would define a local trip. Mr. Desai provided a Columbia-specific example of a local trip.

Following Mr. Desai, Mr. Wells provided an overview of the corridor-wide decisions made during the Second Tier Environmental Studies and a discussion of the ongoing activities since completing the studies in 2005. During his presentation, Mr. Wells' discussed the timeliness of the supplemental study as another key step in the process to rebuild the interstate system for the next 50 years. Reconstruction of the highway is an economic and infrastructure need at a national level. Mr. Wells noted that Missouri is now competing nationally and globally with other nations. Nations such as China, India and members of the European Union are investing 6 to 9 percent of their Gross Domestic Product in infrastructure, whereas the United States is investing less than 2 percent. Changes in the way freight is distributed also strains existing I-70. With just-in-time delivery, freight warehousing now takes place on truck trailers and I-70 through Missouri is central to that system.

Mr. Wells noted that with the work on I-70, Missouri is ahead of where other states are in addressing the needs of their interstate system. Missouri is also working with Illinois, Indiana

and Ohio on a multi-state coalition for I-70 as part of the FHWA Corridors of the Future program.

Mr. Wells provided an overview of what the study team will address during the Supplemental EIS. Among the reasons for considering truck-only lanes, Mr. Wells cited the following:

- Safety – separate cars and trucks
- Constructability – easier to construct while maintaining traffic on existing I-70
- Operational redundancy – ability to keep I-70 open during incidents (construction & accidents)
- Freight efficiencies – more reliable delivery, could allow longer, heavier trucks

Preliminary estimates indicate that implementing truck-only lanes would cost 10 percent more than the \$3 to 3.5 billion estimated previously to reconstruct I-70. The Supplemental EIS will not assess the best way to pay for the improvements; determining how to pay for it is a decision that needs to go through the political process. In the end, a plan will be in place, so that when funding becomes available, MoDOT can implement the Preferred Alternative.

In conclusion, Mr. Wells stated that the study process would not revisit past decisions. The study team will test the original Preferred Alternative in comparison to truck-only lane concepts. The study team will need to make sure that the new concepts can avoid project impacts in excess of those previously identified. The study schedule is fast moving and the study team hopes to have the process wrapped up by the end of the year.

Prior to opening the meeting to a question and answer session, Mr. Wells played a new video that presents the truck-only lane concept and potential applications for it on I-70.

Q&A

Bernie Andrews asked if any other states were implementing the truck-only lane concept.

Mr. Wells replied that, no, other states have yet to construct the concept in a manner similar to what is under review for I-70, although there are limited truck-only segments in California, Texas and New Jersey. However, other states are looking to apply the concept, including Virginia on I-81. Georgia is studying their entire system and developing criteria for identifying locations/facilities on which to apply the truck-only lane concept. Texas is also looking at truck-only lanes associated with the Trans-Texas Corridor project. Truck-only lanes are an emerging trend for the nation and Missouri is at the forefront for studying and considering this concept.

Vicky Curby asked if High Occupancy Vehicle lanes were under consideration for I-70 and noted that the truck-only lane concepts presented in the video look problematic due to the weaving necessitated by using slip ramps to access one part of the facility from another.

The study team discussed that there could be some application of these types of lanes in urban areas like Columbia where right of way is constrained. One way to implement this involves separating long-haul trucks from the general-purpose lanes using a paint stripe separation, similar to high-occupancy vehicle lanes. The study team envisioned slip ramps only where truck volumes are relatively low, therefore reducing the weaving.

Dave Mink asked Mr. Desai how MoDOT could implement truck-only lanes through Columbia.

Mr. Desai replied that the study team would consider a number of concepts for Columbia. Mr. Desai noted that a truck-only bypass of Columbia is probably not feasible, but that the study team would re-assess previous bypass assumptions and decisions to ensure they remain valid. From a traffic standpoint, trucks, not general traffic would use a Columbia bypass. Likewise, the study team will assess previous assumptions and decisions to ensure they remain valid.

In response to a follow up question, Mr. Desai stated that one scenario would direct trucks wishing to use a local exit in Columbia to make a decision as they approached the city. Trucks traveling through Columbia would stay in the truck-only lane. Trucks wanting to make a local stop would move to the general-purpose lanes via slip ramps and exit the highway to reach their destination. The study will need to look at how the truck-only concepts work in Columbia and across the 200-mile I-70 corridor across in Missouri, with a goal of staying within the footprint cleared previously with the Second Tier Environmental Studies.

Mr. Wells noted that although this study will not get to the same level of detail as the Second Tier Environmental Studies, the study team would test various concepts across the 200-mile corridor. Columbia will provide a challenge for applying the concepts, as will the Overton Bottoms and Loutre Valley – each will require flexibility.

Council member Janku asked what types/classes of vehicles MoDOT would permit on the truck-only lanes.

Mr. Wells replied that the threshold for vehicle types allowed on the truck-only lanes was not yet determined. However, the working assumption was that the lanes would accommodate 18-wheelers, thereby creating a separation between the majority of long-haul trucks and general vehicle traffic.

Mr. Mink asked if two lanes in each direction for trucks would prove sufficient over the long term.

Mr. Wells replied that the Second Tier Environmental Studies determined that six lanes would suffice through 2030, but that the Preferred Alternative included flexibility to add a lane each direction at some point. Noting that the study team will have to check the continued validity, Mr. Wells was confident that an eight-lane facility would work into the foreseen future.

Mr. DeMent asked if, with implementation of truck-only lanes, tractor-trailers would also use the general-purpose lanes.

Mr. Wells replied that, yes, the general-purpose lanes would allow trucks, as it may be the only way for trucks to access any interchange. It is important to avoid creating out-of-distance travel for others due to limiting truck access at a given interchange.

Professor Praveen Edara asked what, if anything, would prevent passenger cars from using the truck-only lanes.

Mr. Wells responded that it would be a matter of enforcement and that he did not anticipate MoDOT allowing it. However, future applications, such as tolling or congestion pricing could possibly someday allow cars paying tolls to use the truck lanes. This is not how the study team envisioned truck-only lanes operating.

Mr. Edara followed by inquiring what options were under consideration for the study – mentioning two to three lanes of travel in each direction plus two truck-only lanes.

Mr. Wells pointed out that the study was just commencing and that the study team will look at numerous truck-only concepts to compare against the Preferred Alternative from the Second Tier Environmental Studies.

Mr. Glascock mentioned that the Second Tier Study's Preferred Alternative included continuous outer roads across state. He then asked if the truck-only lanes would contain a similar feature.

Mr. Wells noted that the Preferred Alternative included outer roads originally to meet incident management needs. With truck-only lanes, continuous outer roads are unnecessary for incident management, because of the redundancy provided by the new lanes. The new facility would maintain some outer road access for businesses and homes along the corridor. Mr. Desai mentioned that in Columbia, the one-way frontage roads selected in the Second Tier Environmental Study would most likely remain because there is still the proven need for access and separation of local and through traffic.

Mr. Andrews wondered if the median cable barriers would remain a feature of a rebuilt I-70.

Mr. Wells explained that issues like the median barrier cable were a design level of detail that the study team would likely consider later.

Mr. Andrews also asked that if trucks account for 30 percent of the traffic, what percent of crashes currently involve trucks.

Kenny Voss replied that MoDOT is starting to pull that data and that the study team will consider it during the study and provide more information on this during future Advisory Group meetings. The team will also be reviewing the data compiled in earlier I-70 studies.

Mr. Griggs wondered how one would enforce truck (truck-only lanes) use – for example, how to keep trucks in truck lanes.

Mr. Wells replied that trucks would need to stay in the general-purpose lanes for local access and that it is an enforcement strategy to consider as the study moves forward.

Susan Clark asked how soon it would be before trucks outgrow the capacity of a truck-only lane.

Mr. Wells replied that the study team would review the traffic and make sure we identify concepts to last to 2035 or longer, but it gets tough to be accurate past that timeframe.

Mr. Glascock asked how to maintain an eight-lane facility.

Mr. Wells noted that the study team would probably not address that level of detail during this study. Some concepts make more sense than others for our climate when considering winter maintenance issues. The Improve I-70 team includes resource members from various MoDOT divisions, and they will be reviewing the documents and have input into the final recommendations.

Bob Walters inquired about what other states were doing for their part as participants in the Corridors of the Future program and wondered how much information MoDOT was sharing across state lines?

Kathy Harvey noted that she is engaging the other states as the primary MoDOT contact and sharing information. The four states are working together and discussing how the partnership would work and identify the roles and responsibilities. Ms. Harvey stated that the program would move slowly until establishing a memorandum of understanding across states and FHWA. States have been meeting for about a year now.

Mr. Walters then posed the following questions:

- Is Missouri farther along than the other states? Ms. Harvey replied that, yes, Missouri is further along in the NEPA process. The other states will apply lessons learned from us as they apply it within their states. The first step is a feasibility study across the four states.
- What happens in St Louis and Kansas City? Mr. Wells noted that the study would need to figure out what happens to trucks when they arrive in the Kansas City metro area. The study will look at what happens to trucks when they arrive in Kansas City from a secondary and cumulative impact perspective. The study team will work with the Kansas City freight industry to understand origins and destinations. The study team is also looking at routes and issues associated with getting cars and trucks around the St. Louis metro, as it is part of the 800-mile corridor.
- How much does a truck contribute to the expenses associated with the highway? Ms. Burry referred group members to the fact sheets in their packets. Mr. Wells opined that

truckers would argue they pay their fair share – the numbers exist, the study team just did not have them on hand. Mr. DeMent stated that the study team would either include the information in the notes or bring them to the next meeting.

Cameron Dunafon asked if truck distribution percentages fluctuate during the day.

Mr. Wells noted that trends indicate that trucks provide more movement of freight at night due to highway capacity issues. Mr. Wells indicated that currently truck percentages were higher during evening hours, possibly within an average of 70 percent of the vehicle mix. The study team does not have specific numbers at this time though. Kenny Voss replied that MoDOT could provide more information on truck percentages at a future Advisory Group meeting.

Ms. Curby asked for a map of the existing footprint (the area cleared environmentally during the Second Tier Environmental Studies).

Ms. Burry referenced Ms. Curby to the Improve I-70 website for maps of the study area. Mr. Desai suggested Advisory Group members refer to the SIU 4 document for maps of the Columbia portion of the study area.

Mr. Mink asked if the study team would consider the possibility of using a standard four-lane section without separation – utilizing striping to label the truck-only lanes.

Mr. Wells replied that the study team would consider that type of section as a possibility, especially in urban sections. He referenced a couple examples using paint stripes or rumble stripe separation.

Mr. Mink then continued, asking if the future median identified in the previous study would go away if the study moved forward with truck-only lanes.

Mr. Wells replied that yes, the truck-only lanes would constitute an example use of the future median. Truck-only lanes would limit MoDOT's ability to do other things in the corridor. It does not prohibit options such as High Speed Rail for example – it just would not happen within the I-70 right of way if MoDOT implemented truck-only lanes.

Conclusion

Ms. Burry thanked the Advisory Group and public for attending the meeting. Ms. Burry then provided further project contact information, including the project website at www.improveI70.org and her email address at bburry@hntb.com.

Mr. DeMent also thanked the group and requested that they send any questions or ideas to Ms. Burry. Mr. DeMent then asked the group to save March 26 as a potential date for the next Advisory Group meeting.

The meeting concluded at approximately 5:30 p.m.

Action Items	Responsibility	Deadline
Future meeting dates	HNTB	March 4
Response to questions: <ul style="list-style-type: none"> Maps showing Improve I-70 north/south recommendations: www.improvei70.org/pdf/SIU4pdfs/WesternColumbiaMap-RteBBtoStadium.pdf www.improvei70.org/pdf/SIU4pdfs/CentralColumbiaMap-StadiumToUS63.pdf www.improvei70.org/pdf/SIU4pdfs/EasternColumbiaMap-US63ToRteZ.pdf 	HNTB	Below
<ul style="list-style-type: none"> % trucks involved with accidents 	MoDOT	Next Meeting
<ul style="list-style-type: none"> % funding trucks provide for highway 	MoDOT	Next Meeting
<ul style="list-style-type: none"> % trucks during the daytime versus nighttime 	MoDOT	Next Meeting
<ul style="list-style-type: none"> FAQs for group and web site 	HNTB	Next Meeting



MEETING DOCUMENTATION

HNTB
Engineers Architects Planners
715 Kirk Drive
Kansas City, MO 64105-1310
phone: (816) 472-1201
fax: (816) 472-4086

Date:	April 1, 2008	Time:	4:00 to 5:30 p.m.
Subject:	Columbia Community Advisory Group Meeting #2	Location:	ARC Conference Room

Meeting Participants

Tom Bass
Bob Bechtold
Susan Clark
Chester Edwards
John Glascock
Dave Griggs
Kee Groshong
Christopher Janku
Justin McNutt
David Mink
Larry Moore
Ken Pearson
Ed Siegmund
Pat Smith
Sid Sullivan
Ian Thomas
Bob Walters
Randy Wright
Kenny Voss, Bob Brendel, Kathy Harvey,
Mike Dusenberg
Buddy Desai
Marie Keister
Betty Burry, Michael DeMent, Gretchen Ivy,
Mark Pierson

Representing (Agency or Firm)

Property Owner
Midway Travel Plaza
Diversified Management
Columbia City Schools
City of Columbia, Public Works
Dave Griggs Flooring America
University of Missouri
City of Columbia, Councilman
Vanderveen Crossing
Boone County, Public Works
ConAgg of Missouri
Boone County, Presiding Commissioner
Mid-Missouri Regional Planning Commission
Boone County, Planning and Zoning
Boone County Smart Growth Coalition
PedNet Coalition
Virtual Realty
KMIZ TV
MoDOT

CH2M HILL
Engage
HNTB Corporation

Agenda:

- Welcome and introduction conducted by Betty Burry, HNTB
- Self-introductions took place by Advisory Group members
- Meeting agenda reviewed by Betty Burry

- Questions/Action Items from 2/27 Meeting
- Purpose and Need Review
- Screening Criteria
- Freight/Truck Update
- Legislative Update
- Public Meeting Overview
- Follow-up Q&A
- Next Steps

Questions/Action Items from 2/27 Columbia Advisory Group Meeting

MoDOT Project Manager Kenny Voss provided the following information to answer Columbia-area truck traffic questions asked at the first Columbia Advisory Group meeting in February (please refer to the updated Frequently Asked Questions handout):

- 28 percent of I-70 accidents involve trucks
- 37 percent of accidents involving a truck result in a fatality
- 33 percent of truck accidents result in a disabling injury
- 72 percent of truck trips occur during the day
- 70 percent of truck trips are “through” trips
- Of the local trips made by trucks in the Columbia area, 64 percent of those are going to destinations south of I-70.

Mr. Voss noted that the team was still researching the question that had been asked in February about how much of Missouri’s highway funding comes from trucks. Preliminary information indicates that each truck is responsible for about \$5,300 per year in state taxes and fees as well as \$9,000 in federal taxes and fees.

Purpose and Need Review

HNTB Environmental Lead Mark Pierson explained that the Improve I-70 “Purpose and Need” statement is the first step in the Environmental Impact Statement decision-making process. It helps define goals and objectives, focuses the analysis effort and establishes screening criteria that enables the technical team to evaluate various alternatives.

Mr. Pierson explained that the First and Second Tier Environmental Impact Statements (EIS) for I-70 identified and refined Purpose and Need elements for the state-wide I-70 corridor, which include:

- Accommodate existing and future traffic
- Improve outdated design elements
- Accommodate all users of I-70
- Improve user safety

He said these Purpose and Need elements will be reviewed during the Supplemental EIS, but it is anticipated they will remain mostly intact.

Screening Criteria

Mr. Pierson also explained that Purpose and Need elements form the basis of corridor-wide and Columbia-specific evaluation criteria to help the public and consultant team determine which alternatives best meet the goals of the Improve I-70 project. The proposed truck-only lanes strategy will be evaluated based on these criteria.

During the Second Tier EIS the following evaluation criteria were of particular interest in the Columbia area:

- Safety and operations, with specific attention on local versus through trips
- Relocations, both business and residential
- Right of way impacts
- Environmental impacts
- Impacts to businesses, including relocations and access both during and after construction

Mr. Pierson and Buddy Desai, Columbia-area Task Lead with CH2M HILL, asked Advisory Group members whether these evaluation criteria are still the most important to the community, or whether others need to be considered.

Questions and Comments

Sid Sullivan asked have if the ratio of trucks to cars were included in traffic projections for truck-only lanes.

Mr. Desai explained that 22 percent of the vehicles on I-70 in the Columbia area today are trucks. Forty percent of all vehicles using I-70 through the heart of Columbia are making local trips, which start or end in Columbia. As traffic moves outside of Columbia,

those local trips decrease. Projected traffic volumes are 120,000 vehicles a day on some portions of I-70 through Columbia.

Chris Janku asked how many vehicles per day travel through Columbia on I-70.

Mr. Desai replied that anywhere from 50,000 to 60,000 trips travel through Columbia each day on I-70, depending where the count is taken. More than 60 percent of the local I-70 traffic is destined to areas south of I-70.

Chris Janku asked how noise issues associated with trucks would be addressed.

Mr. Desai said that a noise analysis will be conducted during this phase of study. He noted that the National Environmental Policy Act (NEPA) is clear that noise impacts are an important environmental consideration.

Ken Pearson asked what percentage of truck traffic is considered local.

Mr. Desai said that the previous studies did not analyze the percentage of truck traffic that is considered local and therefore that data is not currently available.

Dave Griggs asked Mr. Desai to clarify the definition of “local”. Is it considered a local trip if a car travels on I-70 from Kansas City, stops in Columbia but then gets back on the interstate to go to St. Louis?

Mr. Desai said that would be considered a local trip because the car made a “local” stop in Columbia. He said that a significant portion of the 40 percent trips defined as local in earlier traffic projections are actually trips that begin and end in Columbia. This definition of a “local” trip was used during the Tier 2 EIS to evaluate the effectiveness of the Near North and Far North bypasses.

Dave Griggs commented that the criteria used during the Second Tier EIS are the right ones. Referring to a display of I-70 arranged in the meeting room, Mr. Griggs asked if this was an accurate display of how wide the median would be in Columbia.

Ms. Burry said the display, which would be used at the upcoming public meetings, represented a rural section of I-70 instead of the more urban Columbia area.

Dave Griggs said that impacts will become far more significant if the footprint for I-70 gets larger (than approved during the Second Tier EIS) to accommodate truck-only lanes.

Mr. Desai recalled from the Second Tier EIS that access to local businesses was a big issue in Columbia. He said the objective in this case was to keep the footprint the same as what was identified and approved in the Second Tier EIS.

Chester Edwards asked if there was anything in the analysis that indicates where the traffic making local trips off I-70 is headed. He asked if anything would be done to the local streets to handle increased local traffic.

Mr. Desai explained that those types of analyses were done during the earlier study to determine cumulative impacts on secondary roads. In addition, the development of the frontage roads paralleling I-70 was to enable local traffic to move smoothly without clogging the interstate, which is intended for through trips. Most local businesses along I-70 indicated they preferred this increased access to their businesses. The analysis to be conducted for this effort will also look at these types of secondary impacts. Mr. Voss added that more detailed information will be developed during the preliminary design phase, which will come later. He said MoDOT would work closely with the Columbia community on those issues.

Chris Janku asked Mr. Desai to confirm an earlier statement that this new concept was expected to fit within the footprint determined in last study.

Mr. Desai confirmed that was correct. It is the team's goal to develop solutions that stay within the I-70 footprint approved during the Second Tier EIS.

Ms. Burry asked the Advisory Group members if the criteria looked acceptable when viewed from the 10,000 foot to 30,000 foot level.

Ian Thomas said he had no comment right now.

Kee Groshong, Dave Griggs, Ed Siegmund and John Glasscock said the criteria looked acceptable.

David Mink asked if the traffic analysis would be similar to what was developed during the Second Tier EIS. How would additional trucks be accommodated when the Second Tier already took up all the available space with new freeway lanes?

Mr. Desai explained that the Columbia section of I-70 is considered an urban section for nearly its entire length, so the question becomes how to allocate the eight lanes that have already been established during the Second Tier. As the traffic mix already assumed a combination of trucks and cars, the current study will analyze how proposed lanes should be allocated to effectively accommodate through trucks and cars as well as local trucks and cars.

Justin McNutt said he was unclear on the urban versus rural section issues. He expressed concern about safety issues. While cross-over accidents have been reduced since the cable barriers were installed, access for emergency vehicles has been reduced. He expressed his concern that adding more lanes will create an additional burden for emergency vehicles trying to access accidents.

Mr. Desai said that emergency access is an important point. He noted that he had seen a significant semi rollover accident on the way to the meeting today, and that the emergency vehicle accessed the accident via an outer road paralleling the highway. He explained that new frontage roads paralleling I-70 would be built – or existing frontage roads re-worked -- in Columbia as outlined in Second Tier EIS and would serve this same purpose.

Chris Janku and Bob Bechtold said the criteria looked acceptable.

Sid Sullivan asked if the traffic projections accounted for how the highway lanes would operate beyond the year 2030. What would the levels of service be?

Mr. Desai replied that the Second Tier EIS developed solutions that would operate at acceptable Levels of Service for the design year. He explained that the EIS established that four lanes would eventually travel in each direction through the urban I-70 sections of Columbia, and then narrow to three lanes each way once in the rural areas of I-70. Mr. Desai said this added capacity would be built only as needed, and would provide an adequate level of service for many years. The truck lanes are expected to fit within this same footprint, except that the configuration between truck-only lanes and other vehicle lanes would be reviewed now.

Sid Sullivan asked how pedestrian traffic would be accommodated. He said it was important that the city remain a united Columbia, and asked if pedestrians would be able to use the bridges crossing I-70.

Mr. Desai said the earlier EIS outlines that pedestrian access would be accommodated in most crossings except at extremely high traffic areas such as the US 63 interchange. He cited the pedestrian bridge to COSMO Park as an example of how pedestrians might be able to cross I-70.

Randy Wright said the criteria looked acceptable.

Larry Moore asked Mr. Desai to confirm that there would be four truck lanes, two car lanes, then two access roads on either side of I-70.

Mr. Desai said that wasn't necessarily the case – there would be four through lanes in each direction on I-70 in Columbia's urban areas, plus frontage lanes paralleling I-70 in most areas to handle local traffic. He explained that the Supplemental EIS would look at various ways to accommodate truck-only lanes within the four lanes in each direction. Including the new frontage roads, this would total 12-lanes, or six lanes heading each direction. The intent is to get local traffic to take the local access/frontage roads.

Larry Moore asked if a driver could use the access roads the entire way through Columbia.

Mr. Desai explained that there would be some manner of frontage road connectivity from Stadium Dr. to US 63, which is where the earlier work identified most of the local trips on I-70 were occurring. This connectivity would be provided by a number of roadways including the new one-way frontages roads and existing roads such as Business Loop 70.

Larry Moore asked how trucks would get off I-70 in Columbia.

Mr. Desai said one alternative would be that a truck driver would make a decision before entering the Columbia area whether he was going to travel through the area or stop. If he were going to travel through, he would take the truck-only lane. If he were going to get off I-70 in Columbia, he would use the general-purpose vehicle lanes. Signage would alert the truck driver to the choices. The truck-only lanes might not be separated physically. It could be done with pavement striping like is done with carpool lanes. These are some of the issues the team would consider as they were developing alternatives.

Bob Walters and Pat Smith said they had no comments.

Sid Sullivan commented that frontage roads will attract strip malls, which will increase traffic. How will increased traffic impact the highway interchanges?

Mr. Desai said the traffic model and future traffic projections took into consideration areas that were zoned for future retail and development, so the highway interchanges were designed to accommodate the increased traffic. However, if zoning changes in future years allow development to occur differently than current plans, more traffic than was forecasted could result. Mr. Desai said that MoDOT looks to local partners like the City of Columbia, Boone County and CATSO to address and manage growth appropriately. MoDOT's Mr. Voss added access management techniques – methods to design roads to ensure traffic flow and ease of access without jeopardizing safety -- would be put in place as new roads are built.

Justin McNutt asked how the interchanges would be designed for trucks to ensure their unimpeded movements throughout the trip?

Mr. Voss said MoDOT would use, to the extent possible, the evaluation criteria and footprint developed during the Improve I-70 Second Tier EIS. All truck-only lane alternatives would be tested against those standards. Mr. Voss said he thinks truck-only lanes can be built within the footprint.

Bob Bechtold asked if the plans for buying right of way would change.

Mr. Desai said the intent was for the footprint, the evaluation criteria and the amount of lanes used would to be the same in the Supplemental EIS as it was in the Second Tier EIS. The goal was to verify the earlier effort and to work toward alternatives that would

have no additional impacts, as that would create an extra level of analysis that the team – and MoDOT – wanted to avoid.

Mr. Desai said he thought it sounded like the Advisory Group still thought these criteria were appropriate. All the Advisory Group members in attendance nodded.

Randy Wright asked if the aesthetic impacts of truck-only lanes would be considered. He commented that other urban areas do a nice job of incorporating aesthetics into their new highway designs.

Ms. Burry said the Second Tier EIS made recommendations on aesthetic treatments to be implemented during construction. She said the intent would be to follow those same recommendations, and to work closely with communities on this during the design phase.

Larry Moore commented that it appears the goal with the Supplemental EIS is to use the same amount of lanes as those established in Tier 2, but to reconfigure the lanes to accommodate trucks.

Mr. Desai agreed that is the goal and one alternative, but stressed that analysis has not yet been completed to verify this is possible.

Ian Thomas asked when the 2030 traffic projections were completed. Did they take into consideration the changing view about the cost of oil and how transportation costs may increase, which will change people's travel behavior? Are more sustainable options being considered?

Mr. Desai replied that the traffic projections were completed in 2004. He said the current traffic models do not account for increased gas prices, but they do account for land use changes and other local policies that would influence travel behavior. Mr. Desai noted that the plan is to construct additional lanes only as needed, as determined by traffic demand.

Freight/Truck Update

HNTB Freight Lead Gretchen Ivy summarized the freight analysis portion to be conducted during the Supplemental EIS. She explained that the freight study would:

- Research national trends in freight movements
- Consider whether longer combination vehicles (LCVs) need to be accommodated, which currently are allowed to operate only in states west of Missouri.
- Study safety and operational benefits of truck-only lanes
- Consider social and environmental impacts

- Gain the freight industry's perspective on truck-only lanes
- Understand national lessons learned with truck-only lanes.

Ms. Ivy explained that experience with truck-only lanes in the United States is limited, but the study will review literature, summarizing lessons learned in states with truck-only lane segments and other truck-only strategies.

Ms. Ivy recapped how I-70 through Missouri is a 200-mile segment of the 800-mile Corridor of the Future, which is a Federal Highway Administration initiative to improve freight flows across the nation. She summarized the four freight study tasks, which are to:

- Conduct freight stakeholder interviews with organizations such as the Missouri Petroleum Marketers and Convenience Store Owners and the Missouri Farm Bureau
- Review freight literature
- Analyze freight flows, including origins and destinations within, and through, the state
- Summarize the findings in a Freight White Paper

Ms. Ivy said the Freight White Paper would be a separate document from the Supplemental EIS, but will provide input for the updated Purpose and Need Statement for the Improve I-70 Supplemental EIS, help develop evaluation criteria that will help select preferred alternatives and provide useful information to the freight industry.

Ms. Ivy noted that interviews to date have revealed a range of thoughts on the TOL concept. Smaller, independent truckers were concerned about competing with longer combination vehicles, while national truck companies like the idea of being able to move more volume. Many truckers want more access to truck amenities. Others are concerned about various funding proposals.

Questions and Comments

Larry Moore asked whether longer combination vehicles (LCVs) are semi trailers that are five or sixth lengths long.

Ms. Ivy said they could be as long as that; this study will look at national trends and future applications of so-called "truck trains."

Chris Janku asked whether the Supplemental EIS and the Advisory Group would consider funding options.

Ms. Ivy replied that the study will look at the social impacts and environmental justice impacts of various funding options, but will not make any recommendations.

John Glasscock asked if freight traffic was projected to forecast on freight rail lines as well.

Ms. Ivy said yes.

Bob Walters asked that sources be provided when the freight research is presented later.

Ms. Ivy said this would be the case.

Sid Sullivan said a concern during a recent high school site selection was ensuring the safety of kids who drive on the highways. He expressed his concern that kids may now be traveling on I-70 with longer trucks that are only separated from regular vehicle traffic by striping painted on the pavement.

Mr. Voss noted that this was also a MoDOT concern. Long trucks are not legally allowed to travel in Missouri today, and this study provides MoDOT an opportunity to look at potential issues over the long-term. MoDOT wants to monitor these national trends so they can meet safety needs and maintain flexibility to deal with whatever comes in the future.

Legislative update

Michael DeMent, HNTB Public Involvement Director, gave an update on legislative efforts to develop options to improve transportation funding. He discussed the current gap between transportation funding needs and available funds. For example, there are currently no funds identified or available to implement the I-70 improvements outlined in the Second Tier EIS, or to implement any recommendations made at the completion of the Supplemental EIS.

Mr. DeMent said Missouri is experiencing part of the transportation funding shortfall that is occurring nationally. By 2010, a combination of factors will reduce MoDOT funding from \$1.4 billion to \$569 million a year – which provides only enough funding to maintain Missouri's existing system of roadways, without major improvements or expansions.

Mr. DeMent summarized three categories of legislative measures under discussion this legislative session, although none are slated to move to passage:

- A 1 percent increase in the sales tax statewide, which would be dedicated to improving I-70 and I-44
- Tolling

- Others, which include creating a new revenue stream to fund the State Highway Patrol in order to return highway funds to MoDOT, or dedicating a percentage of future growth in General Revenue to transportation.

Each of these measures should be considered as legislative discussion starters only. The state's political leaders agree that any new funding mechanism must be put before the voters.

Mr. DeMent reiterated that this study will help ensure the Improve I-70 is project ready to go when and if funding becomes available.

Questions and Comments

Ian Thomas asked how much will a 1 percent sales tax will generate.

Mr. DeMent said it would depend on a number of factors, but one of the measures could generate as much as \$7.4 billion over a 10-year span, which would fund both I-70 and I-44 improvements. It is anticipated major improvements to these two facilities would help relieve maintenance costs on those two interstates, freeing up maintenance funds to be reallocated elsewhere.

Kee Groshong asked how much the TOL construction would cost.

Mr. Voss said the Improve I-70 project estimate was \$3 to \$3.5 billion; converting some of the lanes to truck-only lanes would increase this project cost by 10 to 12 percent.

Kee Groshong asked how much tolling would generate.

Ms. Ivy replied an earlier tolling study assumed average tolls for a passenger car would be about \$15 to cross I-70 from Kansas City to St. Louis. Those driving between two cities within Missouri might not have to pay the cost. In the earlier study, it was proposed that trucks pay two and a half times the passenger vehicle cost.

Ian Thomas asked Ms. Ivy to confirm the money raised by tolls over 40 years would also pay for improvements and maintenance for I-70.

Ms. Ivy said the 2005 study indicated tolls would pay for the construction, maintenance and operations cost of I-70, but did not take into account the truck-only lane concept being considered today.

Chris Janku asked how a sales tax that sunsets in 10 years would take care of ongoing maintenance?

Mr. Voss said that after 10 years MoDOT would start using the original maintenance funding mechanisms to fund I-70 maintenance. However, a new I-70 facility would need less maintenance funding than what the 50-year-old facility uses today.

Randy Wright asked if any these funding initiatives appear to have any real momentum.

Mr. DeMent replied that none of them appeared to have any momentum. They were only discussion starters at this point.

Dave Griggs asked if there might be any federal initiatives to help pay for improving I-70 since it was part of the national Corridors of the Future initiative.

Mr. Voss said many states did not apply for Corridor of the Future designation because they didn't think there was any funding. FHWA surprised everyone by awarding \$5 million toward this initiative. There is now talk at the federal level to increase the national gas tax – so it is possible there might be funding at some point.

Dave Griggs asked if the four-state effort was designed to just spur discussion but to get each individual state to pay for it.

MoDOT State Design Engineer Kathy Harvey said FHWA is trying to spur discussion, and also providing technical expertise, assistance through environmental reviews and all the help they can short of providing funds. They see the crisis coming nationally on congestion, and are eager to work with the states to find creative solutions. There are many unknowns, and FHWA is not making any promises, but they are helping MoDOT and the other Corridors of the Future states cut through the red tape.

Mr. DeMent said there is talk among various Congressional delegations that federal transportation reauthorization, due to occur next year, will be delayed at least until 2010. So it would be an additional year beyond that before there's any additional federal assistance even if new funds were authorized.

Ken Pearson asked how long pavement is expected to last. Does the Improve I-70 effort plan far enough out to accommodate heavier loads in the future?

Kee Groshong noted highways would have lasted longer had trucks not gotten so much heavier. Future highway lanes need to be built a lot stouter.

Mr. Voss said MoDOT wants to take those things into account and to design with flexibility in mind. There is a possibility general purpose lanes could be used longer because trucks are not using them as much. Pavement could be thicker to accommodate heavier vehicles in truck-only lanes.

Kee Groshong asked how long it would take to construct truck-only lanes.

Ms. Ivy said they estimated a four-year construction schedule for the six-lane construction of I-70, but truck lanes were not considered at that time.

Mr. Pierson added that truck-only lanes could add or save time on the construction schedule, depending on how the construction was phased.

Mr. Voss pointed out that the original I-70 took nine years to build. One must balance speed versus cost.

Ms. Harvey said that four years for construction is optimistic. The only way to do accomplish that would be under a design-build environment – which would require legislative changes. She said it could take from between 4 and 30 years to complete the entire construction.

Chris Janku commented that funding raises environmental justice issues on who pays for this, and which states contribute. It was important to think this through so that Missourians are not subsidizing people outside the state, or giving competitive advantages to other states.

Public Meeting Overview

Ms. Burry summarized plans for upcoming public meetings, including the open house scheduled in Columbia on Thursday, April 3rd. She encouraged Advisory Group members to come, help answer questions and share with neighbors about what they have learned so far.

Q&A

Tom Bass asked if the proposed local access roads going through Columbia would be one-way or two-way frontage roads?

Mr. Desai said that the one-way frontage roads proposed in the Second Tier EIS were located between Providence Road and the new Business Loop East interchange located west of Route B.

Mr. Bass said he was concerned this would have a negative impact on businesses there.

Mr. Desai said there are only a few businesses there now and the new frontage roads would allow more businesses to front along I-70.

Next Steps

Ms. Burry thanked the Advisory Group and public for attending the meeting. She announced the next Advisory Group meeting is tentatively scheduled for April 30th, but that a confirmation e-mail would be sent in approximately two weeks to confirm the date.

The meeting concluded at approximately 5:30 p.m.

Action Items	Responsibility	Deadline
<ul style="list-style-type: none">• Confirm future meeting dates	HNTB	
<ul style="list-style-type: none">• % funding trucks provide for highway	MoDOT	Next Meeting



MEETING DOCUMENTATION

HNTB
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715 Kirk Drive
Kansas City, MO 64105-1310
phone: (816) 472-1201
fax: (816) 472-4086

Date:	June 4, 2008	Time:	4:00 to 5:30 p.m.
Subject:	Columbia Community Advisory Group Meeting #3	Location:	ARC Conference Room

Meeting Participants

Bernie Andrews
Tom Bass
Elaine Blodgett
Susan Clark
Vicki Curby
Cameron Dunafon
Chester Edwards
John Glascock
Justin McNutt
David Mink
Ken Pearson
Sid Sullivan
Bob Walters
Elliot Njus
Julia Haslanger
Adrienne Pederson
Cate Kelly
Kathryn Lucchesi
Sara Semelka
Matt Grant
Dan Gemkow
Kenny Voss, Bob Brendel, Kathy Harvey, Matt Burcham
Buddy Desai, Kevin Nichols
Marie Keister
Betty Burry, Gretchen Ivy, Steve Wells

Representing (Agency or Firm)

Regional Economic Development, Inc.
Property Owner
League of Women Voters
Diversified Management
City of Columbia, Planning and Zoning
Taco Bell
Columbia City Schools
City of Columbia, Public Works
Vanderveen Crossing
Boone County, Public Works
Boone County, Presiding Commissioner
Boone County Smart Growth Coalition
Virtual Realty
Columbia Missourian
Columbia Missourian
KOMU TV
KBIA
Missouri University School of Journalism
Columbia Tribune
KRCG TV
KMIZ TV
MoDOT

CH2M HILL
Engage
HNTB Corporation

Agenda:

- Welcome and introduction conducted by Betty Burry, HNTB
- Self-introductions took place by Advisory Group members

- Meeting agenda reviewed by Betty Burry
 - Questions/Action Items from 4/1/08 Meeting
 - Where We Are in the Process
 - Review Improve I-70 Tier 2 Decisions
 - Initial Columbia Supplemental Environmental Impact Statement Alternatives
 - Follow-up Q&A
 - Next Steps

Questions/Action Items from 4/1 Columbia Advisory Group Meeting

Ms. Burry recapped several questions raised at the last meeting that would be addressed during presentations made at the meeting by Buddy Desai and Kevin Nichols with CH2M HILL.

Where We Are in the Process

MoDOT Project Manager Kenny Voss explained the Supplemental Environmental Impact Statement (EIS) process and how it compares to earlier Improve I-70 environmental studies.

- The First Tier EIS (1999-2001) identified a general, statewide strategy to improve I-70, which was to widen I-70 to at least six lanes.
- The Second Tier EIS (2002-2006) evaluated how to widen I-70 in seven separate geographic areas of the state. The outcome was a series of decisions detailing widening strategies, interchange concepts and frontage roads.
- The Supplemental EIS (2008) will compare the general, statewide strategy to widen I-70 with the addition of truck-only lanes within the I-70 footprint established in the Second Tier EIS.

Mr. Voss explained that if the decision to widen I-70 to six general purpose lanes remains unchanged, MoDOT will continue to work to identify funding so that the Improve I-70 program can be built. If the Supplemental EIS concludes with a recommendation to include truck-only lanes, additional environmental evaluations will be completed, along with work to identify funding for construction.

Mr. Voss explained that the Improve I-70 Purpose and Need summarizes the goals that guide the evaluation of various alternatives, and include:

- Accommodate existing and future traffic

- Improve outdated design elements
- Accommodate all users of I-70
- Improve user safety

The Purpose and Need is an evolving document that is updated as projects move through various stages of development. During the Supplemental EIS, the Improve I-70 Purpose and Need is being updated to reflect the latest information on traffic congestion, freight movement and safety.

Questions and Comments:

Sid Sullivan commented that gas prices have tripled in the last three years, auto manufacturers are cutting production of sports utility vehicles (SUVs) and the effects of high energy costs on the public's travel behavior aren't totally known yet. The news indicates that trends are changing in how people are using their vehicles. Mr. Sullivan asked if the planners were looking at other transportation alternatives, and considering whether changes will also occur in truck traffic, which could affect long-term traffic projections.

Mr. Voss said that MoDOT has looked at recent traffic data on cars and trucks, and is not seeing a significant change that would decrease the need to improve I-70, which is already a 50-year old facility and not able to handle today's traffic needs, let alone potential future needs. He said that rail use is indeed growing, and that MoDOT just authorized spending \$80 million toward expanding rail capacity in Missouri. Mr. Voss said the state will continue to invest in alternative travel modes, but with the overall projected increase in congestion and freight movement, continued highway improvements will also be needed to keep up with demand.

Mr. Sullivan asked how MoDOT confirmed these trends.

Mr. Voss explained that MoDOT has employees who monitor all of the states roadways, including freeways, and perform traffic counts annually. He said employees would be sent to the Columbia area this summer to re-verify traffic counts at the US 63 interchange.

Review Improve I-70 Tier 2 Decisions

Buddy Desai, Columbia-area Task Lead with CH2M HILL, showed a video that summarized the Improve I-70 Second Tier EIS decisions in the urban section of Columbia. He explained the proposed improvements at locations through the heart of Columbia including the Stadium Interchange tight diamond, the one-way frontage roads through the "triplets" of Providence,

Rangeline and Business Loop East and finally the US 63 system interchange. He added that all this information is available on the Web site at ImproveI70.org.

Mr. Desai then addressed questions that were raised at the second Advisory Group meeting, including:

- **How will traffic impacts on local streets be handled?** Mr. Desai said that the interchange concepts developed in the Second Tier looked at impacts to local streets directly accessing I-70. The development of existing and new frontage roads was one mechanism for improving local traffic flow that otherwise might use the interstate for local trips. The Supplemental EIS will again look at this issue in the context of how truck-only lanes might affect the streets directly leading to and from I-70.
- **What pedestrian accommodations will be provided?** Mr. Desai read the conclusions directly from the Tier 2 EIS: *Recognize the commitment to pedestrian and bike connectivity. Missouri Department of Transportation is committed to making provisions for bike, pedestrian and wheelchair access across I-70, wherever possible and reasonable. Although a specific access plan has not yet been developed, the detailed concepts would need to be mindful of MoDOT's commitment.*
- **What opportunities exist for aesthetics and enhancements along the corridor?** Mr. Desai said that a Corridor Enhancement Plan was developed during the Second Tier studies. This plan outlined, in general terms, various options that might be pursued. Details would be determined during final design. MoDOT made a commitment to devote up to four percent of the overall project cost toward aesthetics and enhancements, and will keep this same commitment as Improve I-70 moves forward.
- **Was rail considered? What opportunities/challenges exist?** Mr. Desai said that a new passenger rail line in the I-70 corridor was considered during the First Tier EIS. MoDOT factored both existing and planned rail services into rail's ability to reduce traffic on I-70, but concluded that even with rail enhancements, vehicle traffic in the corridor would increase and improvements to the outdated I-70 facility would still be required. Additionally, a new rail line in the I-70 corridor would need to connect to existing rail lines through farms, communities and cities, creating significant environmental and community impacts, and at significant cost. More recently, MoDOT's Division of Multimodal Operations-Railroad Section has been working with Amtrak, Union Pacific and a rail passenger advisory committee to find ways to improve passenger train reliability and the flow of freight rail traffic on the existing Union Pacific corridor between Kansas City and St. Louis.

Questions and Comments

Chester Edwards asked who would pay for the improvements to local streets, and would MoDOT or local officials conduct the related studies?

Mr. Desai said MoDOT would take the lead on local street improvements required as a result of I-70 improvements, and local entities would take the lead on designing and funding any other local street improvements.

Sid Sullivan asked why the Clark Lane flyover and Connelly Rd. access road are considered part of the Improve I-70 effort, when it looks like they accommodate mostly local traffic.

Mr. Desai said there were similar “local” traffic improvements suggested during the course of the Second Tier EIS process, including improvements at Scott Boulevard, for example. But, unlike proposed suggestions at Scott Boulevard, the Clark Lane and Connelly Road improvements provide a direct benefit to I-70. By separating the local trips from the through trips that I-70 was originally built to address, MoDOT will be able to improve the overall efficiency and safety of I-70. These improvements will also help alleviate traffic at US 63, and help minimize impacts to services and businesses at US 63.

Mr. Desai said three main issues were addressed by the Second Tier EIS: whether or not an I-70 bypass should be built to the north of existing I-70, how wide I-70 would need to be to accommodate future traffic needs, and how to address specific traffic and safety concerns at the US 63 interchange. These same issues are being addressed during the Supplemental EIS.

The bypass was dismissed during the Second Tier because traffic projections showed that significant improvements would still be needed on I-70 even if a bypass were built, and there would be significant environmental impacts. A truck-only bypass is being dismissed in the Supplemental EIS for similar as well as additional reasons: a truck-only bypass would have significant environmental impacts; the truck-only bypass would not be usable by passenger vehicles, so significant improvements would still be needed on I-70; and trucks would still need local access to Columbia. The Second Tier EIS did identify a need for a major arterial or similar facility to improve access for local traffic movement in north Columbia. This information was shared with CATSO, the City of Columbia and Boone County officials.

Questions and Comments

There were no questions and comments regarding the bypass issue.

Initial Columbia Supplemental EIS Alternatives

Kevin Nichols, Columbia-area Engineering Lead with CH2M HILL, summarized four options for the placement of truck-only lanes across the entire state, which all fall within the footprint of the I-70 widening approved in the Second Tier EIS.

- Option 1 – Trucks restricted to the outside lanes only. Trucks would be prohibited from the inside lane of the 6-lane cross section. Trucks would be allowed in the remaining two

outside lanes in the eastbound and westbound directions. A grass median would separate the travel lanes of I-70.

- Option 2 – Truck-only lanes on the inside. Two general purpose lanes in the westbound direction would be on the outside and separated from the two westbound truck-only lanes by a grass median. Two general purpose lanes in the eastbound direction would be on the outside and separated from the two eastbound truck-only lanes by a grass median. The westbound and eastbound truck-only lanes would be separated from each other by a barrier.
- Option 3 – Truck-only lanes on the inside. Two truck-only lanes in the westbound direction would be on the inside and separated from the two westbound general purpose lanes by a grass median. Two truck-only lanes in the eastbound direction would be on the outside and separated from the two eastbound general purpose lanes by a grass median. The westbound and eastbound general purpose lanes would be separated from each other by a barrier.
- Option 4 – Truck-only lanes on the south side. Two general purpose lanes in the westbound direction and two in the eastbound direction would stay in their existing location. Two truck-only lanes in the westbound direction and two in the eastbound would be built to the south of the existing lanes. If the widening was to the north, then the truck only lanes would be built to the north of the existing lanes.

Questions and Comments

Chester Edwards asked if all of the options would fit in the I-70 footprint through Columbia selected in the Second Tier EIS.

Mr. Nichols said three of the options would fall within the existing footprint; option 4 would not.

John Glascock asked if there would be continuous frontage roads paralleling I-70 if option 4 were selected.

Mr. Nichols said this would not be the case, because the frontage roads were originally conceived to improve incident management, or emergency access to I-70 to clear accidents, to divert freeway traffic if necessary as well as accommodate more local trips. Truck-only lanes could provide this access instead, eliminating the need for the frontage roads and keeping I-70 within the environmentally cleared footprint.

Mr. Nichols noted this was one of the weaknesses to option 4, and one of several reasons why the consultant team was recommending option 2 instead.

Other reasons option 2 is being recommended include:

- The potential for fewer weaving conflicts at interchanges

- The national trend is to pursue truck-only lanes to the inside of existing freeways, and continuity/consistency is helpful to drivers
- Better visibility of ramps and businesses to general purpose traffic travels in the outside lanes
- Truck noise is further away from receptors and noise-sensitive areas

Mr. Nichols concluded by saying that, with the recommended option 2, general purpose lanes would take up the outside lanes of I-70, and truck-only lanes would be located in the inside lanes of I-70, across the state and in Columbia. These truck-only lanes would carry trucks traveling through Columbia. Trucks intending to stop in Columbia would not use the truck-only lanes.

Questions and Comments

There were no questions and comments regarding the recommendation to move ahead with option 2.

Mr. Nichols then discussed how, with option 2 – truck-only lanes on the inside of I-70 – there would be a grass median separating the general purpose and truck-only lanes in the rural sections of Columbia. In the urban section, the grass median would be eliminated and replaced with some form of separation. The team is looking at two methods to separate cars and trucks as they travel through Columbia: concrete barriers or buffer separation (usually painted stripes and/or rumble stripes).

Barrier separation between truck-only and general purpose lanes would require an additional six to 12 feet of right-of-way on each side of I-70, to allow more room for required shoulder width. This method would push the I-70 footprint beyond what was cleared environmentally in the Second Tier EIS. Mr. Nichols showed examples of this approach in Minnesota and New Jersey.

Using a buffer separation of either painted or rumble stripes provides more flexibility. Mr. Nichols showed samples of high occupancy (carpool) lanes separated with painted solid lines, with skip-striping in areas where vehicles are allowed to change lanes, in Los Angeles and Atlanta.

The team also considered and then dropped from further consideration suspending the truck-only lane operation in Columbia to allow all vehicles traveling through or within the area to mix. This would cause a number of safety concerns: potentially mixing traffic traveling at different speeds, breaking the continuity of I-70 truck-only lanes across the state and difficulty in moving vehicles to “assigned lanes”. All of these would be unexpected and potentially hazardous to drivers traveling across the state on I-70.

Questions and Comments

John Glascock asked how the configuration of truck-only lanes in Missouri would be coordinated with the four-state (Missouri, Illinois, Indiana, Ohio) Corridor of the Future initiative. How would truck traffic transition from truck-only lanes to all general purpose lanes? Would double-reversible lanes fit in Columbia like in St. Louis?

Mr. Voss clarified that the Supplemental EIS is being conducted separately from the four-state Corridor of the Future effort, and as a result Missouri is much further ahead in looking at these types of transition issues, which are indeed- critical. *(Clarify St. Louis answer.)* How these issues are addressed in Missouri will set the tone for the other three participating states.

Mr. Glasscock commented that trying to keep cars and trucks separate between US 63 and Stadium will be difficult.

Mr. Desai noted that in Columbia the percentage of truck traffic ranges from 15 percent to 30 percent of all trips. Statewide, 70 percent of all truck trips are long distance or through trips. Conversely, 60 percent of passenger vehicle trips in Columbia are local (start, end or wholly within Columbia).

Sid Sullivan commented that MoDOT traffic counts said there are 40,000 trips per day east of Route Z, traffic increases in middle of Columbia, and then traffic decreases to 37,000 to 40,000 trips per day.

Mr. Desai clarified that a local trip can include one from Kansas City to Columbia.

David Mink asked what advantages rumble stripes have over painted stripe buffer separations.

Mr. Nichols said rumble stripes have been shown to reduce accidents considerably in Missouri, because the noise and sensation of driving over a rumble stripe keeps drivers more alert to driving in their own lanes.

Mr. Mink commented that the rumble stripes MoDOT uses are uncomfortable to cross – if there is a lot of deliberate crossing of those, it could cause a different type of problem.

Steve Wells, HNTB Project Manager, said one option would be to use rumble stripes in areas where it is important that drivers stay in their own lanes. Painted stripes could be used in areas where drivers would be allowed to cross into general purpose lanes or access local interchange ramps.

Mr. Glasscock asked if the I-70 footprint in St. Louis is the same as the environmentally cleared footprint in Columbia. If St. Louis is narrower in some areas, would the use of concrete barriers be prohibited since they require more room for shoulders alongside the highway.

Mr. Nichols said the answer depends on how highway shoulders are handled, which would be finalized during the final design phase. At Stadium Boulevard in Columbia there would be additional impacts if barrier separation was used because the highway is already tightly confined there.

Ken Pearson asked if there is a safety advantage with the barrier.

Mr. Nichols said it depends. Barriers can prevent accidents from occurring because they keep traffic from mixing. However, if a vehicle hits a concrete barrier injuries can be quite severe.

Elaine Blodgett asked if barriers provide enough flexibility.

Mr. Nichols said that barriers limit flexibility for future changes in lane assignments should the needs change.

Mr. Nichols showed a table summarizing the pluses and minuses of the barrier vs. rumble/painted stripe buffer separation methods.

Rumble Stripe vs. Barrier Separation		
Consideration	Rumble Stripe	Barrier Separation
Separation of trucks and autos	-	+
Fit in existing footprint	+	-
Least expensive	+	-
Snow removal	+	-
Simple signage	-	+
Control of truck merge/diverge points	-	+
Incident management	+/-	+/-
Simple drainage	+/-	+/-
Flexibility for reallocation of lanes	+	-
Ease of emergency vehicle access	+	-
Control of truck weaving	-	+
Maintenance	+	-

Reviewing the table, Mr. Nichols said barrier separation would be better at separating trucks and autos, lends itself to simplified signage at the entrance and exit points, and would help clearly delineate truck merge and divergent points. Rumble/painted stripe buffer separation would be better at keeping I-70 truck-only lane improvements within the environmentally cleared I-70 footprint, less expensive, easier to maintain and remove snow, allow better access in an

emergency and provide more flexibility in allowing lane reallocation. Mr. Nichols said it was unclear which approach had the advantage when addressing drainage issues.

In light of these findings, the consultant team concluded that barrier separation would result in additional costs, impacts and potentially an increase in vehicle/barrier crashes. Thus the preliminary recommendation is to proceed more analysis of the rumble /painted stripe buffer separation method.

Questions and Comments

Justin McNutt asked if it would be illegal to cross the rumble strips. He commented that he hoped it would not be illegal.

Mr. Nichols said enforcement would be important because there may be a speed differential between truck-only and general purpose lanes and it was important to encourage drivers to stay in one lane to the extent possible for safety reasons. Mr. Desai added that the right solution might be painted skip striping. It would be important to limit areas where drivers can cross-over between truck-only and general purpose lanes to ensure truck-only lanes provide the sought-after higher level of efficient freight movement. Truck-only lanes would be intended to serve truck traffic traveling the entire way through Columbia.

Elaine Blodgett commented that, having driven I-70 in St. Louis, newly added rumble stripes have deterred drivers from crossing into the wrong lane. Ms. Blodgett asked where a driver would go if his vehicle broke down in a truck-only lane separated by a concrete barrier.

Mr. Nichols showed a picture indicating how shoulders would be accessible at all times with painted or rumble stripes, and a picture showing that with concrete barriers there would be a shoulder between the inside truck-only lane and the barrier. There would also be multiple areas where the barriers would have gaps that allow emergency access.

Mr. Desai said the team would research how other states with truck-only type lanes (High Occupancy Vehicle, etc.) are handling vehicle breakdowns.

Ms. Blodgett commented that the highway would be really wide if barriers were used.

Chester Edwards asked if speed limits would be same in all lanes.

Mr. Desai said this issue would not be determined during this phase of study. Mr. Desai's opinion was that different speed limits might be considered if there were barriers between the lanes. In some states, such as Illinois, there are different speed limits for trucks and cars, regardless whether there is a separation between the two.

Sid Sullivan commented that it was said earlier that there would be four lanes in each direction of I-70, with potential for a fifth lane. Does this take the fifth lane?

Mr. Desai said adding two truck-only lanes in each direction would take up the extra capacity to widen I-70 that the Second Tier had set aside for improvements at some later date. Mr. Desai said it was a trade off: pursuing truck-only lanes within the environmentally cleared I-70 footprint would remove some flexibility to expand later, but would increase capacity for both cars and trucks sooner.

John Glascock asked how truck-only lanes would be designed between West Boulevard and Stadium Boulevard.

Mr. Nichols said the truck driver who needed to access Columbia would stay in a general purpose lane, while trucks traveling through Columbia without stopping would stay in truck-only lanes.

Mr. Glascock said he needed Columbia-specific numbers for local traffic vs. through traffic, and an idea of how many trucks travel through Columbia, before he could determine whether there was a need to make this type of investment.

Facilitator Betty Burry asked the Advisory Group if, overall, they thought the rumble/painted stripe buffer separation approach was reasonable.

Elaine Blodgett and Vicki Curby nodded yes, they thought it was reasonable. Ms. Curby commented that she thought barriers were inappropriate, and that rumble stripes were more consistent with the rest of I-70.

John Glascock said no. He preferred that mixed traffic be allowed through the urban section of Columbia, from US 63 to Stadium Boulevard. He said truck-only lanes would be okay elsewhere.

MoDOT Project Manager Kenny Voss asked Mr. Glascock if he would be more comfortable if there was only one truck-only lane traveling through Columbia instead of two, as was currently being considered. Mr. Glascock said he still didn't think it was a good idea. He said rumble stripes would cause a lot of noise. When Mr. Voss asked if painted stripes would be a preferred separation method, since a decision on those specifics didn't need to be made now, Mr. Glascock said that was okay. He said he can hear vehicles hit the current rumble strips on I-70 even though he lives five miles away, on US 63. Ms. Curby commented that she lives closer to I-70 and doesn't hear them. Justin McNutt, who said his home is located above I-70, says the sound carries to his home.

Bernie Andrews, Susan Clark, Cameron Dunafon and Tom Bass nodded that they thought the recommended option 2 with rumble/painted stripe buffer separation was reasonable.

Chester Edwards said he thought one or two truck lanes were needed through Columbia – whichever made sense based on the analysis to follow.

Bob Walters said he was opposed to the physical barrier separation, and was in agreement with the recommended approach.

Sid Sullivan commented that if one looks at the low Level of Service (slower traffic flow) in the urban areas, where the area is more confined, rumble stripes will protect against accidents. Truckers have a tendency to drift when they're tired. Where Level of Service increases, and where traffic flows more smoothly, perhaps just painted stripes would be appropriate.

Justin McNutt said he doesn't support the barrier separation method. He suggested using painted stripes for now to test the concept, and then consider rumble stripe separation later.

John Glascock asked that MoDOT report how many noise complaints they have received since installing rumble strips on I-70.

Mr. Nichols said the next step in the study was to look at operational considerations for truck-only and general purpose lanes in the rural and urban sections of Columbia, and to see how truck-only lanes would affect independent and interdependent interactions in the area. He explained that these and similar questions have to be asked and answered during the analysis and later design phases to determine how it would all work together.

Chester Edwards asked if putting access roads on either side of I-70 could eliminate some of the existing ingress/egress (interchange) access points.

Mr. Desai said that type of analysis was completed during the Second Tier EIS, and as a result one set of interchange ramps will be removed if the Improve I-70 widening moves forward.

Mr. Nichols showed more detail at US 63 and discussed the issues that must be looked at when considering making truck only connections there.

The path forward is to look at the best allocation of lane assignments for truck-only, general purpose and auxiliary lanes. The team will also look at how and where trucks will interface between truck only lanes with general purpose lanes, and the complexities of truck/auto operations at the US 63/I-70 interchange.

Mr. Desai recapped the questions that were poised at the last Advisory Group meeting, and quickly reviewed how those answers were provided today, or how they will be provided in the future.

Sid Sullivan asked if the evaluation criteria will look at how truck-only lanes increase /decrease in safety.

Mr. Desai said safety will be looked at in much more detail and would be factored into the decision-making process.

Mr. Desai summarized the next steps, which include:

- Evaluate reasonable ideas
- Refine reasonable ideas
- Recommend best idea(s)
- Prepare draft environmental document
- Document ideas and their evaluation
- Finalize environmental document
- Receive federal report

Follow-up Q&A

Facilitator Betty Burry asked if there were any additional comments and questions

Questions and Comments

There were no further questions or comments.

Next Steps

Ms. Burry thanked the Advisory Group and public for attending the meeting. She announced the next Advisory Group meeting has not yet been scheduled but that a confirmation e-mail would be sent in approximately two weeks to confirm the date.

The meeting concluded at approximately 5:35 p.m.

Action Items	Responsibility	Deadline
<ul style="list-style-type: none">• Confirm future meeting dates	HNTB	Late June
<ul style="list-style-type: none">• % funding trucks provide for highway	MoDOT	Next Meeting

<ul style="list-style-type: none">• What % of truck traffic gets off in Columbia today?	MoDOT	<u>?</u>
<ul style="list-style-type: none">• Info on how many complaints MoDOT receives about rumble stripes/related noise	MoDOT	Next Meeting

Meeting Summary

IMPROVE I-70 ADVISORY GROUP

12th Meeting

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

November 18, 2004

This is a summary of the November 2004 meeting of the Improve I-70 Advisory Group.

Members Present: Jeff Barrow, Bob Bechtold, Susan Clark, Dave Griggs, Bud Moulder, Lowell Patterson, Ed Siegmund and Bob Walters.

Dennis Donald and John Huyler of The Osprey Group facilitated the meeting.

Materials Available at the Meeting

In addition to the agenda, materials, available for discussion at the meeting, included:

- Copies of the current “Preliminary Draft EIS” that Advisory Group members reviewed during the meeting
- A “Readers Guide” that describes the Improve I-70 Environmental Documents
- The 10-page draft “Summary” for the Columbia area EIS
- The “Recommended Preferred Alternative Impact Summary Table”
- A brochure entitled “Improve I-70 Corridor Enhancements”

Meeting Goals

1. Hear about recent activities and updated material;
2. Understand the process of moving to a Final EIS and opportunities for public and agency review;
3. Review the Draft EIS structure and content;
4. See a visualization of the Improve I-70 preferred alternative for the Columbia area;
5. Identify next steps in the planning process.

Preliminary Items

Mr. Bob Brendel of MoDOT provided the Group with a brief summary of the various meetings that had been held in the past few months with CATSO as well as with civic, neighborhood and business groups. Numerous changes and improvements have been made to the draft environmental document as a result of these meetings. In October, CATSO approved changes to the area’s major roadway plan that allow implementation of the Improve

I-70 preferred alternative. Mr. Brendel also described the review that has been conducted by other agencies. Once the reviews are complete and MoDOT and the Federal Highway Administration sign the document, it will be made available for public review for 45 days or longer.

Next, referring to a brochure that had been handed out, Mr. Brendel described the basics of the Enhancement Plan.

Finally, Mr. Brendel gave the Group some background about Amendment 3, which the voters approved in the November election. The Transportation Commission has adopted a three-prong plan. The first phase is a \$400 million commitment to resurfacing 2,200 miles of roads in Missouri, which carry 60 percent of the state's traffic. Eighty-two percent of the state's population lives within ten miles of those roads and all of the interstates are involved. The second phase involves the acceleration of some already programmed projects that are in the MoDOT five-year implementation plan. The third phase will be an identification of new projects that can be added to the five-year program. In all, the Amendment 3 projects are about \$1 billion in work that will all be completed by 2007.

Process Leading to a Final EIS

During the next portion of the meeting, Mr. Buddy Desai of CH2M Hill described the process that will lead to a Final EIS. Once the draft is approved by MoDOT and the Federal Highway Administration there will be a public hearing in Columbia. It was indicated that some time after the public hearing and the comment period, there would be one final Advisory Group meeting to review the comments received and how they are being addressed. The Project Team will carefully review all the comments received and is required to respond to all substantive comments in writing. Then production of the final environmental impact statement will begin. It is expected that the final draft will be completed sometime in the Spring of 2005. At that time, there will be another 30-day period for public comment. After any issues raised during that comment period are addressed the consultants will prepare a Record of Decision for the Federal Highway Administration to approve. At that point, if funding is available, MoDOT can begin actual design of improvements to I-70.

Review of the Preliminary Draft EIS

Mr. Desai began the review of the Preliminary Draft by focusing attention on the "Readers Guide." Then members of the Advisory Group were provided a "guided tour" of the highlights of the entire document as they referred to the 3-ring notebook copies that had been provided for the meeting. It was an interactive discussion with several questions being raised and answered.

Visualization Preview

Ms. Michelle Graham of HNTB introduced a computer model of the I-70 corridor between Stadium and Highway 63 to illustrate how the final preferred alternative would look and perform. Five video clips are being produced and Ms. Graham showed the Advisory Group two of them, a "fly-over" from west to east and a "circle tour" over the Stadium interchange.

Closing Comments and Next Steps

In the time remaining on the agenda, the Advisory Group provided closing comments and general observations to the Project Team. Some of the comments included:

“I’ve had such a problem grasping the concept of what’s happening with the 70-63 interchange. This demonstration helped. I understand it now. It helped tremendously, and this thing is absolutely phenomenal. The information that’s in this document, it’s just mind-boggling, and I can’t wait to get a hold of it and go through it.”

“The thing that has impressed me most today is this document. It’s a phenomenal community resource other than for the purpose that you wrote it. There is so much information in here that relates to the demographics of the community, et cetera, that is easily accessible in a thousand places, and here it is in one place. It’s going to be our responsibility to really learn what’s in here so we can help communicate what’s in here to the community, but this is a tremendous resource.”

A comment was made about the design of the interchange at I-70 and Highway 63. An Advisory Group member urged that the design “bite the bullet” and not force people to go through stop lights. In response, Mr. Desai pointed out that the proposed design allows for the building of a fly-over in the future, but the judgment was made that short-term projected traffic volumes do not justify that additional expense at this point.

“I have compliments all around. I mean, like the 11 previous meetings, this one has been done very well and it’s a very powerful tool right there to use, I think, for your public hearing. I think it’s fantastic, and can save a lot of time on your part in trying to explain it over and over and over again.”

“I think some people at the table, myself included, pretty well thought at the beginning that this might have been a foregone-conclusion process, and this was just going to be -- we’re going to lead you down the path to come to the conclusion that you want. And that hasn’t been the process at all, and I compliment you guys and MoDOT and the people involved in the planning of this -- for listening to this group, really taking to heart what has come to you in the public forums, and trying to accommodate those points of view as best you can. And it’s obvious that you have done that, but I don’t know that that’s actually been said, and I think that’s important to be said.”

Adjournment

The meeting adjourned with a repeat of the expectation that the draft environmental document will be made public sometime in January and the public hearing will likely take place in February. All Advisory Group members were encouraged to submit comments in writing if they had concerns or issues about anything that was not adequately addressed in the document.

UPCOMING ADVISORY GROUP MEETING

To be determined (likely April or May 2005)

IMPROVE I-70 ADVISORY GROUP

Meeting 12
4:00-6:30 p.m.
November 18, 2004

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

Meeting Goals: 1) Hear about recent activities and updated material; 2) Understand the process of moving to a Final EIS and opportunities for public and agency review; 3) Review the Preliminary Draft EIS structure and content; 4) See a visualization of proposed I-70 improvements through central Columbia; 5) Identify next steps in the planning process.

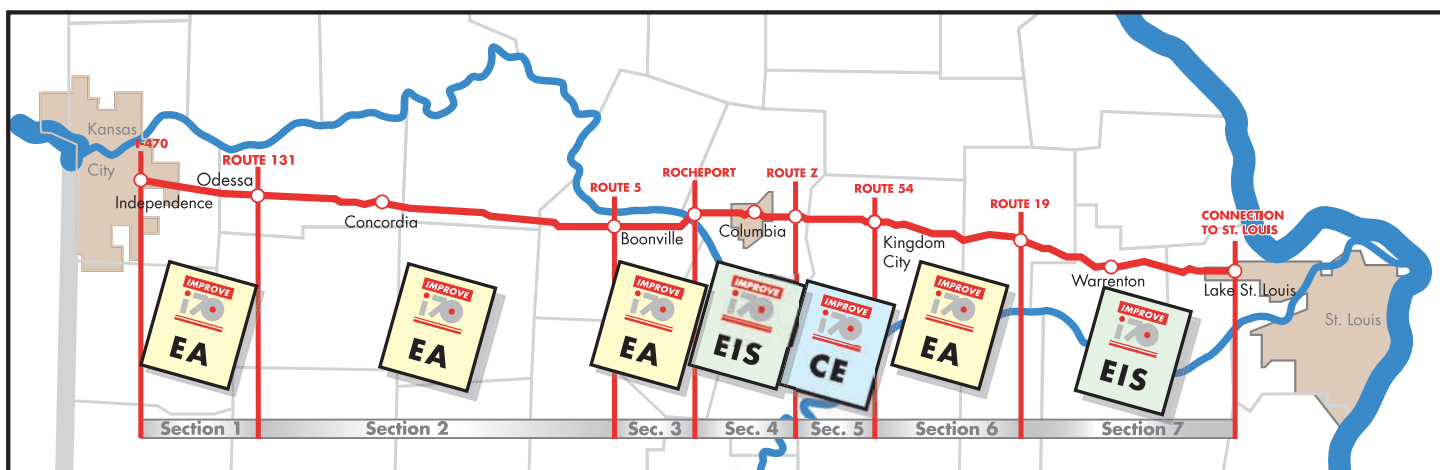
- 4:00 Convene Meeting**
The Osprey Group
- 4:05 Updates**
Bob Brendel, MoDOT
- 4:25 Process Leading to a Final EIS**
Buddy Desai, CH2MHill
- 4:40 Review Preliminary Draft EIS**
Buddy Desai, CH2MHill
- 5:40 Visualization Preview**
Michelle Graham, HNTB
- 6:00 Advisory Group Questions or Comments**
The Osprey Group
- 6:25 Closing and Next Steps**
The Osprey Group
- 6:30 Adjourn**



Reader's Guide

This informational guide is provided by the Missouri Department of Transportation to assist you in interpreting and evaluating documents produced for the Improve I-70 Studies. This guide answers some general questions about the documents and provides a brief overview of their contents.

Environmental Documents



What is an environmental document?

An environmental document is a public document that helps transportation-related agencies and the public make sound decisions about transportation investments. It provides in-depth analysis of the costs, benefits and impacts of a transportation improvement.

Seven environmental documents will be produced for I-70 to detail how improvements to the interstate could impact the natural and man-made environments. Each document will provide an evaluation of all the reasonable alternatives for widening and rebuilding I-70 and recommend a preferred alternative for that particular section of the route. Three types of environmental documents are being produced for the seven sections of I-70 being studied.

- *Environmental Impact Statement (EIS)* - An EIS is being produced for two areas where I-70 improvements are likely to have a significant environmental impact, requiring in-depth analysis and efforts to minimize those impacts.
- *Environmental Assessment (EA)* - An EA is being produced for four areas where the degree of environmental impact caused by I-70 improvements is uncertain and yet is expected to not be significant.
- *Documented Categorical Exclusion (CE)* - A CE is being produced for only one area of I-70 where no significant environmental impacts are expected.



What information is included in environmental documents?

Environmental documents include all of the important technical data collected and analyses conducted by the seven respective Improve I-70 study teams. While the documents might be organized slightly differently from section to section, they all will include the following basic information.

Summary

This part of the document provides an overall summary of the study and the document's contents. If you only read one section of the draft, read this one. The summary provides a concise overview of why the study was conducted, what was studied and how study teams arrived at their proposed conclusions.

Chapter 1 - Purpose and Need

This chapter provides a brief history of I-70, describes the specific study area and identifies the transportation problems that would be addressed by proposed improvements.

Chapter 2 - Alternatives

This chapter describes the alternatives, or options, considered for widening and rebuilding I-70, and how effective they are in addressing the problems defined in Chapter 1. The chapter also explains how those options were narrowed to a set of reasonable alternatives.

Chapter 3 - Affected Environment

This chapter describes the existing natural and man-made environments within the study area. The chapter includes population statistics, demographics and information about prime farmland, wetlands, lakes, rivers, parklands, geological features such as caves and mines, historical or culturally sensitive areas and threatened and endangered species.

Chapter 4 - Environmental Consequences

This part of the document, which is sometimes combined within Chapter 3, presents both the adverse and beneficial impacts to the affected environment. This allows the reader to compare the environmental and socio-economic impacts of the reasonable alternatives. It also explains how the reasonable alternatives were narrowed to the recommended preferred alternative.

Chapter 5 - Comments and Coordination

This chapter summarizes the public involvement and agency coordination activities carried out over the course of the study. It also provides a summary of public input gathered through meetings and other events, the telephone hot line, project Web site and email and postal addresses.

Section 4(f)

Some documents could include a chapter titled "Section 4(f)." This name refers to a portion of federal law mandating that special efforts be made to preserve public parks and recreation lands, wildlife and waterfowl refuges and significant historic sites. If any of those assets are impacted by the selected I-70 improvements, it must be shown that: (1) there is no prudent and feasible alternative to avoid the asset; and (2) all possible efforts will be made to minimize harm.

List of Preparers

The document will provide a list of personnel who were primarily responsible for preparing the draft version.

Circulation List

This list identifies those who will receive a copy of the draft document for review and comment. It also identifies locations where the draft will be available for public viewing.

Appendix A - First Tier Summary

Each document will contain the same information within Appendix A: a summary of the First Tier Study of I-70. That study, completed in December 2001, determined that widening and reconstructing I-70 along its existing route was the best course of action for the future.

Other Appendices

These will vary from document to document, but Appendices B, C, D and so on will include a variety of information such as maps, tables, numerical data and meeting summaries. See the document's table of contents for a listing of appendix titles.

Why are environmental documents produced?

Environmental documents are required by the federal government for transportation improvement projects that will use federal funds and/or federal permits for construction. But far beyond that requirement, I-70 documents also help state and federal agencies and local communities make well-informed decisions about the future of the interstate. The documents will describe how a community or area might change as a result of I-70 improvements, and in that way, will help you form opinions about which improvement alternative you prefer.

Additionally, environmental documents give you the same information used by the Missouri Department of Transportation and Federal Highway Administration in selecting a preferred alternative for I-70. This full disclosure helps you see the basis on which decisions are made. Each document will answer the following basic questions:

- ***What is the purpose and need for the improvement?***
Why is the study being conducted? This is the problem definition.
- ***How might the improvement impact the natural environment?*** For example, how would building improvements to I-70 impact wetlands or threatened and endangered species? Would the project impact air quality or the quality of rivers and streams?
- ***How might the improvement impact the cultural and social environments?*** How would I-70 improvements impact historical and archaeological sites, public recreation lands like state parks, access to jobs, schools, shopping and other services, the local economy, land use and community cohesion? Are economically disadvantaged groups disproportionately affected?
- ***How would the proposed improvement function?***
How much traffic would it carry? How much would it cost to construct and maintain? Would it address the identified problems adequately?

What's the process for document review and approval?

Federal and state guidelines and policies direct the process of developing, reviewing and approving environmental documents. The process for an Environmental Impact Statement (EIS) and an Environmental Assessment (EA) includes the following steps.



Draft Document Distribution and Comment Period

First, a draft version of the environmental impact statement (DEIS) or environmental assessment (DEA) is approved for circulation by the Federal Highway Administration (FHWA). Afterwards the document is circulated to a variety of state and federal agencies and public officials for their review, and at the same time, is made available for public review at a variety of locations such as libraries and government buildings and on the project Web site. Anyone can review and comment on the draft during a specified period that lasts at least 45 days for an EIS and at least 30 days for an EA. The official comment period will be well publicized for each document.

Where can I review documents

The Missouri Department of Transportation and the Federal Highway Administration want to ensure that the widest possible audience has the opportunity to review and comment on draft environmental documents. To ensure this, several opportunities for review and comment will be provided.

On the Web

All draft documents will be provided on the Web site, www.ImproveI70.org. Visitors to the site will be able to view the document, download its contents and submit comments online.



At Public Viewing Locations

All draft documents will be available at a variety of public locations within each section of I-70. Generally, these will include libraries, government buildings and other locations with easy

public access. A listing of public review locations can be found within the draft document, on the project Web site at www.ImproveI70.org, or you may call 1-800-590-0066 to determine a specific location.

and how can I submit comments?

At Public Hearings

Public hearings will provide the opportunity to review the document, discuss its contents with a member of the study team and provide your comments for the official study record. Hearings will be well publicized and details about the date, time and location will be posted on the project Web site.

Through the Mail or Online

You may mail your comments to Improve I-70, P.O. Box 410482, Kansas City, MO, 64141-0482 or send them electronically to: comments@ImproveI70.org.



Remember, each document will have an official review period during which time your comments must be submitted.



Official Public Hearing

About three weeks after the draft document has been available for review, an official public hearing will be held to gather citizen's comments. Hearings will likely be in an open-house format, allowing you to come and go at any time. Copies of the document, along with display boards, maps and other information will be available, and study team members will be on-hand to answer your questions and address your concerns. Comment forms will be available and court reporters will be provided to transcribe your verbal comments. All written and transcribed comments made at the hearing, and any other written comments received during the official comment period will become a part of the official study record.



Final Document Development

After the official review period ends, the study team will review all comments submitted by the public and government review agencies and begin work on the final version of their document – Final Environmental Impact Statement (FEIS) or Final Environmental Assessment (FEA). Substantive comments (see the questions and answers above) are responded to in writing and in the final document. The final document is basically an update of the draft and includes those substantive comments and the results of any additional evaluations or analyses performed in response to the comments gathered.

How are these documents different from the *First Tier Environmental Impact Statement*?

The First Tier EIS considered the needs of the entire I-70 corridor between Independence and Lake St. Louis and evaluated several corridor-wide improvement strategies. While environmental documents for the Improve I-70 studies will be similar in structure and basic content, they will provide much greater detail on how changes caused by the reasonable alternatives for I-70 could impact specific areas. Documents will also suggest how best to avoid, minimize or mitigate those impacts.

Can I get my own copy?

You can get a copy of the draft documents several ways. You may download documents from the project Web site at www.ImproveI70.org, or you can copy portions of the documents at public viewing locations where copy facilities are available. For the convenience of others, it is requested that the documents not be taken or borrowed from their viewing locations. You may also request a paper copy of the document or a copy on CD-ROM by calling the project hot line at 1-800-590-0066.

Why is the Section 5 document different?

In Section 5, proposed I-70 improvements will be explained in a Documented Categorical Exclusion (CE). This type of document is used when improvements are not expected to cause significant impacts to the surrounding environment. Section 5 includes mainly rural, un-developed land with few natural environmental features or habitats, and widening is proposed directly adjacent to the existing highway. Although the study process includes the same rigorous data collection, analysis and public involvement efforts as in other sections, this type of documentation is appropriate given the environmental and social character of Section 5. The CE will be made available to the public in the same way as other sections, and study team personnel will be present to address public questions and concerns at hearings in Sections 4 and 6.

What is a ***SUBSTANTIVE*** comment?

"I don't want this highway there" is a comment. "I don't want this highway there because there is an old family cemetery there" is a substantive comment. Substantive comments place a fact on the table that must be addressed. Should you only submit substantive comments? Absolutely not. Your opinion matters and you should express it. Only substantive comments receive a formal response, but ALL comments are documented and reviewed by the study team.

4

Final Document Distribution

Copies of the final document are provided to the same state and federal agencies, public officials and public locations that received the draft. The final document will confirm the preferred alternative and will serve as the basis for future actions related to I-70 improvements.



5

Document Approval

The Federal Highway Administration has responsibility for approving all environmental documents for I-70. After final versions are circulated, the agency will publish a Record of Decision (ROD) for Environmental Impact Statements, and a Finding of No Significant Impact (FONSI) for Environmental Assessments. These approvals announce the selected alternative for I-70 improvements which can proceed to the next phases of development – design, right of way acquisition and construction. These next phases are dependent on funding. Please be advised that no funding has yet been authorized for design, right-of-way acquisition or construction of major I-70 improvements.

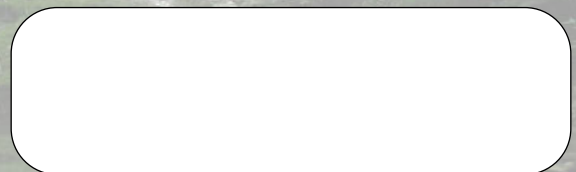
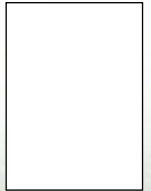
How will I be informed about documents and hearings?

Postcard notices with details about document availability and public hearings will be sent to all those on the Improve I-70 mailing list (if you received this guide by mail, you're on the list). This information will also be detailed in upcoming issues of *Momentum* (the Improve I-70 newsletter), through news releases sent to local media and through legal notices published in area newspapers. All these activities will take place several weeks before official hearings are held to provide ample time for the public to review draft environmental documents.

Where can I get more information about Improve I-70?

The Improve I-70 Web site includes a wealth of information about MoDOT's efforts to plan for the future of this vital interstate. There you'll find background information on why the current studies are being conducted and a history of the decisions that preceded them. You'll also find answers to frequently asked questions and facts about important issues like trucks, noise and funding. Videos and other graphics on the site illustrate how I-70 might look in the future, and maps in the "local focus" section show the I-70 improvements that have been considered. You are encouraged to visit the site at **www.ImproveI70.org** to learn more. If you have questions about information you find on the site, contact us at 1-800-590-0066.

IMPROVE I-70
P.O. Box 410482
Kansas City, MO 64141



Summary

A. Location and Termini

The Missouri Department of Transportation (MoDOT) and the Federal Highway Administration (FHWA) are investigating improvements to Interstate Route 70 (I-70) across Missouri, from Kansas City to St. Louis. This effort is known as Improve I-70. In accordance with the National Environmental Policy Act (NEPA), a tiered approach was taken in the Improve I-70 investigation. A First Tier Environmental Impact Statement (EIS) was initiated to examine the entire 200-mile (321.9-kilometer [km]) section of I-70. The First Tier EIS focused on identifying the most appropriate types of improvements for I-70 on a conceptual level. It also identified seven Sections of Independent Utility (SIU) within the 200-mile (321.9-km) First Tier study area. A series of Second Tier studies was undertaken to identify specific improvements most appropriate to each SIU. This document addresses SIU 4.

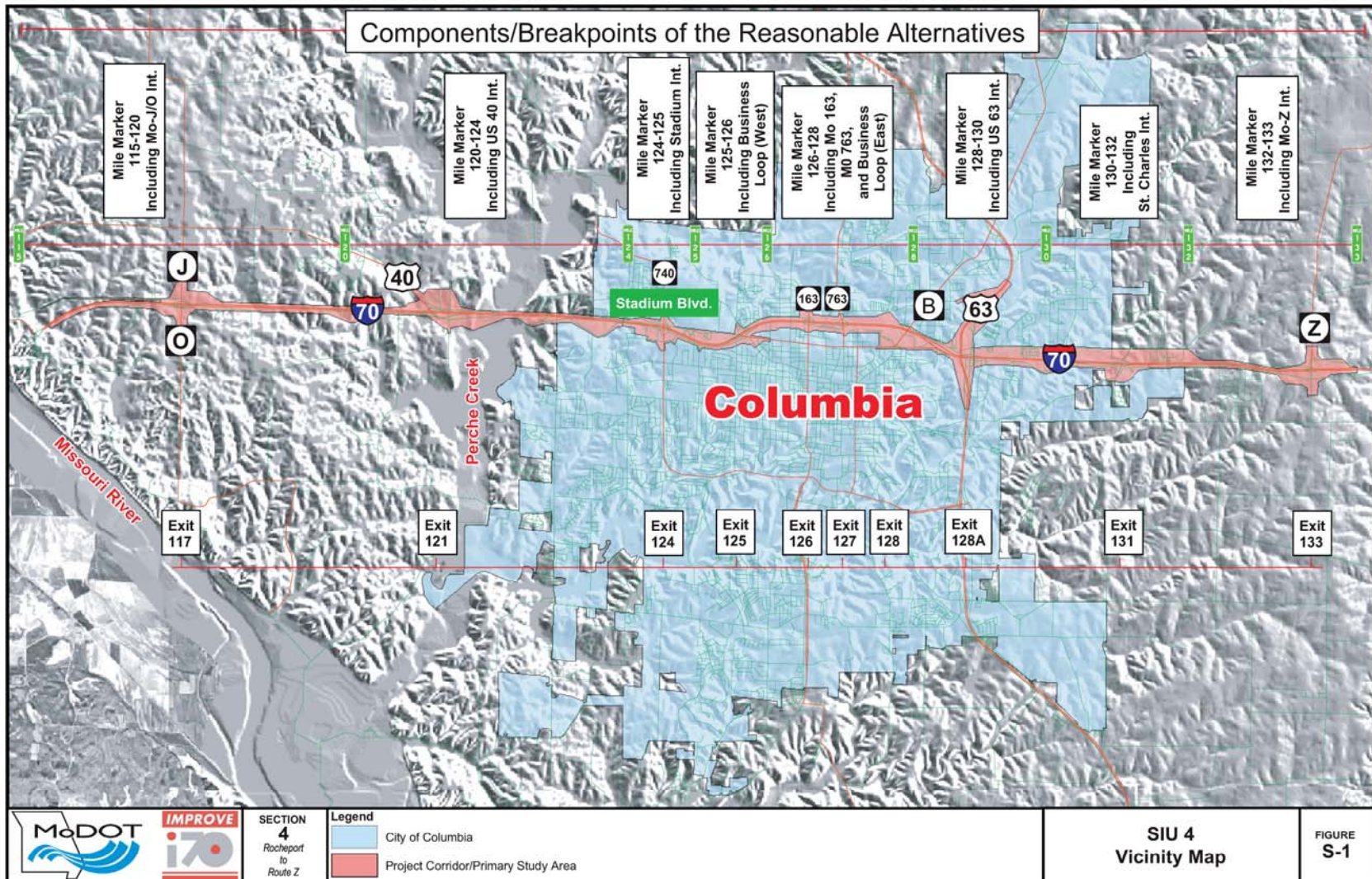
Section of Independent Utility 4 includes the city of Columbia and the portions of I-70, from just east of, but not including, the Missouri Route BB interchange (MO-BB, exit 115) to just east of the MO-Z interchange (exit 133). The MO-J/O interchange (exit 117) is the western-most interchange within SIU 4. This 18-mile (29.0-km) section of four-lane divided highway has limited access and contains 10 interchanges. Section of Independent Utility 4 spans virtually the entire width of Boone County. The logical termini for SIU 4 were initially established in the First Tier EIS and confirmed during the Second Tier EIS (see **Figure S-1**).

B. Proposed Action

The proposed action is the implementation of the recommended preferred alternative for the SIU 4 portion of the Improve I-70 project. As stated in the First Tier EIS, the overall goal of the Improve I-70 project is “to provide a safe, efficient, environmentally sound and cost-effective transportation facility that responds to corridor needs as well as expectations of a national interstate.”

Within SIU 4, the recommended preferred alternative specifies the improvement of I-70 along its existing alignment. Improvements include increasing the number of through lanes on I-70 from three to six, west of the U.S. 40 interchange and east of the MO-Z interchange, and from four to eight from U.S. 40 interchange to the MO-Z interchange. In addition, the recommended preferred alternative would include the reconstruction/reconfiguration of the existing interchanges.

Figure S-1: SIU 4 Vicinity Map



C. Purpose of and Need for Proposed Action

Purpose and need are the transportation-related problems that the project is intended to address. The generation and evaluation of alternatives are conducted to develop the most appropriate solution to the identified problems. A preferred alternative would be selected, in part, on the basis of how well it satisfies the project's purpose and need.

The purpose and need elements associated with the Second Tier of the I-70 (SIU 4) EIS are to:

- **Accommodate existing and future traffic volumes on I-70**—Within SIU 4, the overall volume of traffic on I-70 is projected to at least double between 2000 and 2030. With the No-Build Alternative, these increases would result in future operational difficulties for travelers on I-70. Consequently, one element of the purpose of and need for improvements to I-70 is to develop alternatives that accommodate existing and projected traffic volumes.
- **Improve existing I-70 design**—Interstate 70 has been in place for many decades and several design features do not meet the standards required of modern roadway facilities. In order to satisfy future transportation demand, there is a need to correct outdated design elements. Consequently, one element of the purpose and need is to improve the existing facility by developing it in accordance with current design standards.
- **Accommodate all users of I-70**—Section of Independent Utility 4 is roughly equidistant between the major population centers of Missouri (St. Louis and Kansas City). Interstate 70 plays an important role in freight movement and general inter/intra-state travel. Because SIU 4 also traverses the city of Columbia, it plays an important role in the local roadway network. This creates a situation where the existing traffic streams are in conflict. Trucks present an additional operational challenge because of their size and operating characteristics. It is the intent of this project to accommodate the various traffic streams to the extent practical. Consequently, one element of the purpose and need for SIU 4 is to develop alternatives that accommodate all users of I-70. All other things being equal, the alternative that best accommodates all users of I-70 would be superior.
- **Improve user safety**¹—Both the frequency and severity of crashes on I-70 have been increasing over time. Because traffic volumes on SIU 4 are expected to at least double by the design year of 2030, the number of crashes can also be expected to increase. Consequently, one purpose and need element for SIU 4 is to develop alternatives that improve user safety on I-70.

D. Alternatives

A tiered screening process was used to develop and evaluate alternatives. At the end of each tier, a selection process was undertaken whereby the most appropriate alternatives were advanced for further consideration. At each tier, the amount of data collected (to assist with

¹ Crash statistics and safety data summarized or presented in this paragraph are protected under federal law. See Appendix I-B.

decision-making) was increased. The overall decision-making process of the project started with the **corridors** that emerged from the First Tier EIS. The three corridors evaluated included improving the existing I-70 corridor, a Near North Corridor and a Far North Corridor. Ultimately, improving the existing I-70 corridor was the only corridor advanced for further evaluation.

Within the existing I-70 corridor, concept development focused on the mainline widening alternatives and the interchange configurations. The First Tier evaluation and subsequent technical studies recommended that the mainline in the subsections west of U.S. 40 be widened to the south of the existing eastbound lanes, establishing a 124-foot (37.8-meter [m]) median width. The westbound lanes would remain in their current location. This approach minimized the impacts in this section of the corridor. East of U.S. 40 to the eastern project limits, the roadway would be widened symmetrically around the existing centerline with a raised median barrier. Slight asymmetrical widening to the north between MO-740 and Business Loop West, and to the south between Business Loop West and MO-163 minimized impacts in these locations. See **Appendix II-B** for typical and special sections.

General design criteria for the mainline include a design speed of 75 miles per hour (mph) in the rural sections and 70 mph in the urban sections. Horizontal curves have a maximum degree of curvature of 1°30'. Vertical clearance for side roads over I-70 is 19'-0" (5.8 m). Ramp design speeds are 50 mph at the gore and 30 mph for loops. Full design criteria information for all roadways is presented in **Appendix II-A**.

Relative to through lane needs, it was determined that three lanes of travel in each direction would need to be provided between the project's western terminus and the U.S. 40 interchange, and east of the MO-Z interchange to the eastern terminus to accommodate 2030 traffic volumes. Between the U.S. 40 interchange and the MO-Z interchange, four lanes of travel in each direction would be required to accommodate 2030 traffic volumes. In addition, room has been allocated throughout SIU 4 for construction beyond 2030 of an additional lane in each direction, or for an alternative mode of transportation. Unless otherwise noted, references to the number of through lanes are for the year 2030, and do not include these potential extra lanes.

In order to properly accommodate the access needs within SIU 4, numerous concepts were considered. Initially, preliminary concepts were developed and evaluated. This was followed by a detailed concept phase. At this stage, a one-way frontage road concept, a two-way frontage road concept and a collector/distributor concept were developed. The detailed concepts included complete engineering depictions, iterative traffic evaluations and quantitative impact assessments. Ultimately, it was determined that none of these individual concepts alone were optimal. Instead, a hybrid or combination of concepts would be needed. The hybrids emerging from the concept-stage are also referred to as the reasonable alternatives. The reasonable alternatives have benefits that the individual concepts cannot attain. The reasonable alternatives were organized by location. Each of the individual components could be combined in every possible way. A detailed evaluation of the costs, benefits and impacts associated with the reasonable alternatives resulted in the identification of the recommended preferred alternative. The recommended preferred alternative satisfies the project's purpose and need, minimizes negative environmental impacts (eliminates avoidable significant negative impacts) and, overall, best balances the costs and benefits of project development. An extensive public involvement process also accompanied the development and evaluation of alternatives. By the time the recommended preferred alternative was announced, at least 19 public involvement events were held.

The recommended preferred alternative consists of the following reasonable alternative elements:

Western Part of Project Area: Western Terminus to Stadium Interchange

This portion of I-70 extends between mile 116.2 to 124.6, including the MO-J/O interchange and the U.S. 40 interchange. The mainline widening would occur to the south and the widened rural median would be maintained. The widening to the south minimizes impacts and allows for a seamless transition to the Missouri River crossing that occurs in SIU 3 (approximately 1.3 miles [2.1 km] west of the SIU 4 termini). It also reduces construction delays and cost by allowing for the maximum reuse of the existing lanes.

The MO-J/O interchange would be constructed as a diamond interchange (**Exhibit II-12**)² and the U.S. 40 interchange would be reconstructed as an enhanced diamond interchange (**Exhibit II-13**).

Central Part of Project Area: Columbia between Stadium and U.S. 63

This portion of the study area extends from mile markers 124.6 to 130.0, including the Stadium Boulevard, Business Loop West, MO-763, MO-163, Business Loop East, U.S. 63 and Business 63 interchanges. Overall, the mainline widening occurs symmetrically on each side for the existing highway³. Room for a maximum of eight lanes would be available. An urban median would be used for impact reductions. The existing frontage roads would be maintained and, in some cases, improved.

The Stadium interchange would be reconstructed as a tight diamond⁴ (**Exhibit II-16**), and the Business Loop West interchange would be reconstructed as a two-point interchange (**Exhibit II-19**). The 163/763/Business Loop East interchanges would be part of a one-way frontage road system (**Exhibit II-20**) and the U.S. 63 interchange would be a four-movement system interchange combined with Business 63 as a tight diamond (**Exhibit II-22**).

Eastern Part of Project Area: U.S. 63 to MO-Z

This portion of the study area extends from mile marker 130.0 to the eastern terminus (mile marker 134.0), including the St. Charles Road and MO-Z interchanges. The mainline widening would occur symmetrically on each side for the existing highway and the urban median would be used. The existing frontage roads would be maintained and, in some cases, improved. West of the MO-Z interchange, there would be eight through lanes and east of the interchange there would be six through lanes.

The St. Charles interchange would be reconstructed as a tight diamond interchange (**Exhibit II-23**), and the MO-Z would be a standard diamond interchange (**Exhibit II-26**).

² Exhibit II-27 depicts the entire recommended preferred alternative at a smaller scale.

³ One important exception occurs in the vicinity of the Business Loop West interchange. An existing substandard curve would be corrected in this area, resulting in widening to the north for the portion of I-70 west of the Business Loop and widening to the south for the portion of I-70 east of the Business Loop.

⁴ With additional ramps to and from the east at Fairview Road.

E. Impacts

The process that led to the identification of the recommended preferred alternative included evaluations of impacts. The impact analysis included right of way impacts, environmental impacts, community impacts, displacement impacts, engineering impacts and issues along with an examination of the compatibility with local transportation priorities. An extensive public involvement plan was also used in the decision-making process.

Impacts associated with the reasonable alternatives include the conversion of farm land, the acquisition of land and structures, stream and floodplain crossings, wetland impacts, woodland impacts and potential impacts to protected species. **Table S-1** is an impact summary for the recommended preferred alternative. **Table S-2** is a more detailed impact matrix for all reasonable alternatives within the western portion of SIU 4 (western terminus to Stadium interchange). **Table S-3** is a more detailed impact matrix for all reasonable alternatives within the central portion of SIU 4 (Columbia between Stadium and U.S. 63). **Table S-4** is a more detailed impact matrix for all reasonable alternatives within the eastern portion of SIU 4 (U.S. 63 to MO-Z/eastern terminus).

F. Lead Agency/Cooperating Agencies

The lead agency of the EIS is FHWA in consultation with MoDOT. Missouri Department of Transportation and its consultants are responsible for conducting the environmental and engineering evaluations, carrying out the public involvement activities, coordinating with state and federal review agencies and preparing the EIS in consultation with FHWA. The federal cooperating agencies include the United States Environmental Protection Agency (USEPA) and the United States Army Corps of Engineers (USACE).

The SIU 4 Study Team, which included staff and representatives from MoDOT Headquarters and MoDOT District Five, met regularly with staff from Columbia Area Transportation Study Organization (CATSO), the City of Columbia and Boone County to determine and study the alternatives developed for the Columbia area. The group met regularly to review land use and traffic data, widening concepts and emerging alternatives. This collaborative effort provided guidance and insight throughout the process. The study team also made at least quarterly presentations to the CATSO board to update them on study progress and seek direction on Columbia-specific issues.

Resource agency coordination was also a priority throughout the Improve I-70 Second Tier studies. A Study Management Group (SMG) was convened to ensure proactive coordination. Group activities included regularly scheduled SMG meetings, phone calls, e-mails, correspondence and face-to-face meetings on SIU-specific issues. Included in the SMG are representatives from the MoDOT headquarters and division offices, FHWA, USACE, USEPA, Missouri Department of Natural Resources (MDNR), Missouri Department of Conservation (MDC), Natural Resources Conservation Service (NRCS), United States Coast Guard (USCG) and United States Fish and Wildlife Service (USFWS). Four SMG meetings involving SIU 4 have been held to date.

G. Regulatory Compliance/Pending Action

The planning, agency coordination, public involvement and impact evaluation for the project were coordinated in accordance with the NEPA, the Clean Water Act (CWA), the Clean Air Act (CAA), the Farmland Provision Policy Act, Executive Order 11988 on Wetland and Floodplain Protection, the Fish and Wildlife Coordination Act, the Endangered Species Act (ESA), the National Historic Preservation Act (NHPA) and other state and federal laws, policies and procedures for environmental impact analyses and preparation of environmental documents.

This document complies with United States Department of Transportation (USDOT) and FHWA policies to determine whether a proposed project would have disproportionate impact on minority or low-income populations. It meets the requirements of the Presidential Executive Order on Environmental Justice 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*. Neither minority nor low-income populations would receive disproportionately adverse impacts under the reasonable range of alternatives.

River and wetland impacts associated with the range of reasonable alternatives are subject to permitting and associated water quality certification under Sections 404 and 401 of the CWA. This project is being processed in accordance with the policy of merging the NEPA review and compliance with the CWA. Key to merging the review is the coordination between the MoDOT and FHWA with the USACE and MDNR at several concurrence points. In this way, the full rationale of the decisions by the MoDOT and FHWA can be shared with the regulators as the decisions are made, reducing the potential for having to revisit critical planning decisions at a later time.

Relocation Assistance Plans for all potential acquisitions and displacements would require approval before being implemented. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, provides for payment of just compensation for property acquired for a federal aid project. The relocation program provides assistance to displaced persons in finding comparable housing that is decent, safe and sanitary. This applies to businesses, farms, nonprofit organizations and residential properties.

Upon selection of a preferred alternative, further investigation would be done to verify that the improvements would not affect important archaeological resources. If the proposed improvements affect archaeological or historical resources eligible to the National Register of Historic Places (NRHP), the requirements under Section 106 of the NHPA would be completed. Additionally, the project team is coordinating with FHWA to satisfy Section 4(f) requirements associated with historic site impacts (see Chapter IV).

Informal coordination with the MDC would be continued to determine whether the proposed improvements would affect state-protected species discussed in Chapter III. Coordination would also be continued with the USFWS to determine whether the project would adversely affect federally protected species.

H. Environmental Commitments

During the design and implementation of the selected alternatives, MoDOT is committed to obtaining necessary permits and performing other actions that would minimize and mitigate the impacts of the project on the environment. Those commitments are summarized below:

- Relocation assistance would be provided for all businesses, nonprofit organizations and residents that must be relocated. Assistance would be provided by MoDOT in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act. Relocation assistance under the program would be made available without discrimination to all who would be relocated.
- The I-70 Study Team would continue to coordinate with local planning agencies, including CATSO and the Columbia Planning and Building Department.
- This project will comply with the American Disabilities Act of 1990.
- A MoDOT approved maintenance of traffic plan would be developed and implemented for the construction phases of the project. Through traffic would be maintained along I-70 and at access points to the interstate from cross roads. It is likely that some interchange ramps and cross roads would be closed and temporary detours required. Construction schedules, road closures and detours would be coordinated with police forces and emergency services to reduce impact to response times of these agencies.
- Provisions would be made for bike, pedestrian and wheelchair access across I-70 wherever possible and reasonable.
- The design of roadway crossings over I-70 and bridges over streams in the Columbia area would be coordinated with the City Planning and Building Department and the Parks and Recreation Department to make the crossings as compatible as possible with plans to extend bicycle and pedestrian trails and pathways along the roadways and stream corridors.
- Detailed design of the project would include early coordination with City and County public works departments and the Missouri One-Call System to identify utilities in the project area. The design process would include periodic consultation of utility owners to ensure compatibility of the roadway design with continued service, proper design of any utilities requiring relocation, construction techniques and timing and technical assistance during construction.
- During the final design process, the MoDOT would consider options to minimize new right of way acquisition.
- The MoDOT would coordinate with the USACE to ensure compliance with Sections 401 and 404 of the CWA. This would address impacts to streams, wetlands and other waters of the United States during the design process. Clean Water Act permits would require a detailed delineation and evaluation of waters and wetlands affected by the project and minimization of impacts. In accordance with established procedure, the wetland delineation results will be presented in the Final Environmental Impact Statement. During the design phase specific impacts to wetland and other waters of the United States would be assessed to determine if those impacts can be avoided or further minimized. Unavoidable impacts to wetland and streams would require mitigation. Development of mitigation strategies would be determined through the permitting process with the USACE and the MDNR.
- Best management practices would be implemented to prevent and reduce soil erosion and sedimentation in local waterways and sinkholes. Missouri Department of

Transportation would employ methods for stormwater management during and after construction in accordance with its *Standard Specifications Book for Highway Construction* and National Pollutant Discharge Elimination System (NPDES) stormwater permit, as well as methods included in the joint Columbia/Boone County NPDES Phase II stormwater permit. Disturbed areas would be restored with suitable vegetation to stabilize the area over the long term.

- Floodplain permits would be obtained from the State Emergency Management Agency (SEMA).
- Landscaping would be in accordance with the statewide *I-70 Corridor Enhancement Plan*. In accordance with MoDOT standards, new seed mixes, mulch and plant materials would be free of invasive weedy species to the extent possible to reduce the spread of invasive species along the highway to natural areas and adjacent properties.
- To avoid potential negative impacts on the Indiana bat, coordination with the USFWS would be conducted. The USFWS advocates reviewing projects on a case-by-case basis focusing on the following criteria: the project's proximity to known hibernacula; maternity, male roosts and/or important foraging areas; the composition of the woodland; the land use of the area after the project is complete; location in Knox, Macon and Shelby counties and consideration of the magnitude, scope, frequency and duration of the proposed action with regard to the importance of the area to the Indiana bat. To address USFWS and MDC concerns, MoDOT would review the Natural Heritage Data Base periodically during the project development process to identify any new locations of Indiana bat activity. Missouri Department of Transportation would continue consultation with the USFWS to avoid or minimize potential impacts to this species.
- Surveys for populations or potential habitat of the Running Buffalo clover would be performed prior to construction activities.
- Missouri Department of Transportation is cooperating with MDNR, MDC and USFWS to relocate the population of bristled cyperus known to occur within the right of way to other publicly owned lands prior to construction.
- Additional study and proper remediation of hazardous waste sites that would be encountered by construction would be performed as needed to minimize exposure of construction workers and the public to hazardous wastes and to ensure proper disposal of contaminated earth and other substances. This includes proper disposal of demolition debris in accordance with state law.
- Dust control during construction would be performed in accordance with MoDOT's standard methods, which require application of water or approved dust control measures on haul roads and during grading. Pavement material batch plants would be situated in accordance with the *Standard Specifications* or any special provisions developed during coordination with MDNR regarding air quality standards and emissions. Portable material plants would be operated in accordance with MDNR air quality requirements/guidelines. A permit must be obtained from the MDNR to open burn or open burn with restrictions.

- Noise barriers would be further investigated at five locations, as identified in the study of sensitive receptors, where their installation is feasible and the cost of the barriers does not exceed the state guidelines. This process would comply with MoDOT standard procedures and include more detailed evaluations of cost and effectiveness, public involvement and outreach and, potentially, barrier design and implementation.
- Missouri Department of Transportation would coordinate with the State Historic Preservation Office (SHPO) to ensure compliance with Section 106 of the NHPA.
- The design of new structures such as bridges and noise barrier walls would incorporate the elements contained in the I-70 Corridor Enhancement Plan to the maximum extent possible.
- Missouri Department of Transportation would consult with emergency responder agencies involved in traffic incident management on I-70 in the future design and maintenance of traffic plan development as the Improve I-70 program progresses.



Table S-1
Recommended Preferred Alternative Impact Summary
 Improve I-70: Columbia Area (SIU 4)

IMPACT CATEGORY	MEASURE	TOTAL IMPACTS FOR RECOMMENDED PREFERRED ALTERNATIVE
RIGHT OF WAY IMPACTS (Existing Land Use within Required Right of Way)		
Residential	acres	54
Commercial	acres	63
Industrial	acres	9
Agricultural (Wooded/Vacant)	acres	249
Public (Parks and other publicly owned parcels)	acres	11
Other (e.g. utilities, institutional, fraternal organizations)	acres	11
Total Right of Way Required	acres	397
ENVIRONMENTAL IMPACTS		
Wetland Impacts	acres	8.3
Non-Wetland Pond Impacts	acres	2.2
100-Year Floodplain Impacts	acres	72
Stream Crossings	#	73
Natural Community Impacts	acres	143
Potential Threatened/Endangered Species Impacts	Yes/No	Yes
Number of Sites Requiring Additional Hazardous Material Assessment	#	15
Secondary and Cumulative Impacts	rating	O
Visual Impacts - Existing vs. Proposed	rating	+
COMMUNITY IMPACTS		
National Register of Historic Places Impacted	#	1 - Bowling Napier Estate
Important Community Resources - Displacement of Structures	#	5
Important Community Resources - Property Acquisition	acres	15.7
Potential Impacts to Low Income or Minority Populations (EJ)	rating	O
Potential for Noise Walls	Yes/No	Yes
DISPLACEMENT IMPACTS		
Residential Impacts (Displacement of Dwelling Units)	#	299
Total Number of Structures Acquired	#	142
Business Operation Impacts (Displacement of at Least One Structure)	#	66
Total Number of Tax Map Parcels Affected	#	612
ENGINEERING ISSUES		
Comply with MoDOT Access Management Criteria	rating	O
Construction Staging	rating	O
Traffic Operations	rating	O
Maintenance of Traffic	rating	O
Phased Implementation of Full Build	rating	N/A
Project Costs		
New Construction Cost	2005 Dollars	\$469,630,000
Right of Way Cost, including displacements	2005 Dollars	\$134,886,000
Maintain Existing Travel Patterns	rating	O
Ability to Accommodate Future Expansion	rating	-
COMPATIBILITY WITH CATSO PRIORITIES		
Conformance with Adopted Local Plans	rating	O
Impact on Local Street System	rating	O
Impact on Land Use Patterns	rating	+
Impact on Neighborhood Stability	rating	O

RATING SYSTEM	
Positive Impact/Performs Better than other Alternatives	+
Neutral Impact/No Differentiator	O
Negative Impact/Performs Poorer than other Alternatives	-






Table S-2: Reasonable Alternative Impact Summary
Western Portion of Project Area: MO-BB to Stadium Interchange
Improve I-70: Columbia Area (SIU 4)

IMPACT CATEGORY	MEASUREMENT	MO-J/O Interchange (Mile Markers 116.2 to 120.0)	U.S. 40 Interchange (Mile Markers 120.0 to 124.6)	
		Reasonable Alt. #1: Diamond Interchange	Reasonable Alt. #1: Enhanced Diamond Interchange	Reasonable Alt. #2: Diamond Interchange w/ SW Loop
RIGHT OF WAY IMPACTS (Existing Land Use within Required Right of Way)				
Residential	acres	14	8	7
Commercial	acres	2	8	9
Industrial	acres	0	1	2
Agricultural (Wooded/Vacant)	acres	64	44	62
Public (Parks and other publicly owned parcels)	acres	3	0	1
Other (e.g. utilities, institutional, fraternal organizations)	acres	0	1	1
Total Right of Way Required	acres	83	62	82
ENVIRONMENTAL IMPACTS				
Wetland Impacts	acres	0	4.3	4.3
Non-Wetland Pond Impacts	acres	0.5	0	0.3
100-Year Floodplain Impacts	acres	6	43	41
Stream Crossings	#	18	17	17
Natural Community Impacts	acres	51	36	48
Potential Threatened/Endangered Species Impacts	Yes/No	No	No	No
Number of Sites Requiring Additional Hazardous Material Assessment	#	0	3	3
Secondary and Cumulative Impacts	rating	O	+	-
Visual Impacts - Existing vs. Proposed	rating	-	+	+
COMMUNITY IMPACTS				
National Register of Historic Places Impacted	#	0	0	0
Important Community Resources - Displacement of Structures	#	0	0	0
Important Community Resources - Property Acquisition	acres	0	0.2 acres (CPS Services Building)	0.3 acres (CPS Services Building)
Potential Impacts to Low Income or Minority Populations (EJ)	rating	O	O	O
Potential for Noise Walls	Yes/No	No	No	No
DISPLACEMENT IMPACTS				
Residential Impacts (Displacement of Dwelling Units)	#	5	4	5
Total Number of Structures Acquired	#	11	17	21
Business Operation Impacts (Displacement of at Least One Structure)	#	1	5	7
Total Number of Tax Map Parcels Affected	#	64	88	94
ENGINEERING ISSUES				
Comply with MoDOT Access Management Criteria	rating	N/A	O	O
Construction Staging	rating	N/A	+	+
Traffic Operations	rating	N/A	O	+
Maintenance of Traffic	rating	N/A	+	+
Phased Implementation of Full Build	rating	N/A	N/A	N/A
Project Costs				
New Construction Cost	2005 Dollars	\$47,857,000	\$73,348,000	\$82,788,000
Right of Way Cost, including displacements	2005 Dollars	\$2,415,000	\$3,522,000	\$4,306,000
Maintain Existing Travel Patterns	rating	N/A	+	+
Ability to Accommodate Future Expansion	rating	N/A	+	-
COMPATIBILITY WITH CATSO PRIORITIES				
Conformance with Adopted Local Plans	rating	+	+	-
Impact on Local Street System	rating	O	+	-
Impact on Land Use Patterns	rating	O	+	-
Impact on Neighborhood Stability	rating	O	+	-
		Recommended Preferred Alternative	Recommended Preferred Alternative	

RATING SYSTEM	
Positive Impact/Performs Better than other Alternatives	+
Neutral Impact/No Differentiator	O
Negative Impact/Performs Poorer than other Alternatives	-



Table S-3: Reasonable Alternative Impact Summary Central Portion of Project Area: Columbia between Stadium Interchange and US-63
Improve I-70: Columbia Area (SIU 4)

<div><div>IMPROVE</div><div></div></div>	IMPACT CATEGORY	MEASUREMENT	Stadium Interchange (MO-740) (Mile Markers 124.6 to 125.2)				Business Loop West Interchange (Mile Markers 125.2 to 126.0)	MO-163, MO-763 and Business Loop East Interchanges (Mile Markers 126.0 to 128.0)		U.S. 63 Interchange (Mile Markers 128.0 to 130.0)
			Reasonable Alt. #1: NW Loop	Reasonable Alt. #2: Tight Diamond Interchange	Reasonable Alt. #3: Single Point Urban Interchange	Reasonable Alt. #4: Split Diamond Interchange	Reasonable Alt. #1: Two-Point Diamond Interchange	Reasonable Alt. #1: One-Way Frontage Road System	Reasonable Alt. #2: Collector-Distributor System	Reasonable Alt. #1: Tight R/W Interchange Design
RIGHT OF WAY IMPACTS (Existing Land Use within Required Right of Way)										
Residential	acres	11	11	11	11	2	11	11	2	
Commercial	acres	11	5	5	6	6	18	18	12	
Industrial	acres	0	0	0	0	0	5	5	2	
Agricultural (Wooded/Vacant)	acres	27	23	23	29	0	15	15	8	
Public (Parks and other publicly owned parcels)	acres	4	1	1	1	2	3	3	2	
Other (e.g. utilities, institutional, fraternal organizations)	acres	1	1	1	1	0	7	7	1	
Total Right of Way Required	acres	54	41	41	48	10	59	59	27	
ENVIRONMENTAL IMPACTS										
Wetland Impacts	acres	0	0	0	0	0	0	0	2.4	
Non-Wetland Pond Impacts	acres	0.5	0.5	0.5	0.5	0	0	0	0	
100-Year Floodplain Impacts	acres	1	1	1	1	0	0	0	14	
Stream Crossings	#	9	7	7	10	1	2	2	7	
Natural Community Impacts	acres	23	16	16	19	0	12	11	7	
Potential Threatened/Endangered Species Impacts	Yes/No	No	No	No	No	Yes	No	No	No	
Number of Sites Requiring Additional Hazardous Material Assessment	#	2	2	2	2	2	6	6	1	
Secondary and Cumulative Impacts	rating	-	O	+	-	O	O	O	O	
Visual Impacts - Existing vs. Proposed	rating	+	+	+	+	-	+	+	+	
COMMUNITY IMPACTS										
National Register of Historic Places Impacted	#	0	0	0	0	0	1 - Bowling Napier Estate	1 - Bowling Napier Estate	0	
Important Community Resources - Displacement of Structures	#	2 - Boone Co. Fire Dist. and American Heart Assn	1 - American Heart Assn	1 - American Heart Assn	1 - American Heart Assn	0	3 - VFW Post, Parole Board and Social Services Building, OATS, Inc.	3 - VFW Post, Parole Board and Social Services Building, OATS, Inc.	0	
Important Community Resources - Property Acquisition	acres	Boone County Fire District - 4.0a American Heart Assn - 2.4a Columbia United Church of Christ - 0.9a	Boone County Fire District - 0.8 a American Heart Assn - 3.0a Columbia United Church of Christ - 0.9a	Boone County Fire District - 0.8a American Heart Assn - 3.0a Columbia United Church of Christ - 0.9a	Boone County Fire District - 0.7a, American Heart Assn - 2.7a, Columbia United Church of Christ - 0.9a	Memorial Services of Columbia -0.1a US Army Reserve - 1.6a	Rusk Rehabilitation Center - 1.6a Social Services Building - 1.4a Church of God of Columbia - 0.6a OATS, Inc. - 0.9a VFW Post - 1.9a Columbia Utilities & RR - 1.5a	Rusk Rehabilitation Center - 1.2a Social Services Building - 1.0a Church of God of Columbia - 0.9a OATS, Inc. - 0.9a VFW Post - 1.8a Columbia Utilities & RR - 2.3a	Grand Lodge of Masons - 0.2a Praise Assembly of God - 0.1a	
Potential Impacts to Low Income or Minority Populations (EJ)	rating	O	O	O	O	O	O	O	O	
Potential for Noise Walls	Yes/No	Yes	Yes	Yes	Yes	Yes - Parkade	Yes - Parkade	Yes - Parkade	Yes - White Gate and Pine Grove Village	
DISPLACEMENT IMPACTS										
Residential Impacts (Displacement of Dwelling Units)	#	135 (West Village Manor - 120 units)	135 (West Village Manor - 120 units)	135 (West Village Manor - 120 units)	135 (West Village Manor - 120 units)	128 (Terrace Retirement Apartments 128 units)	6	26	17	
Total Number of Structures Acquired	#	33	31	31	31	7	33	38	20	
Business Operation Impacts (Displacement of at Least One Structure)	#	14	13	13	13	5	26	26	5	
Total Number of Tax Map Parcels Affected	#	91	86	86	89	46	85	86	96	
ENGINEERING ISSUES										
Comply with MoDOT Access Management Criteria	rating	O	O	O	O	N/A	O	O	N/A	
Construction Staging	rating	O	O	-	O	N/A	O	-	N/A	
Traffic Operations	rating	O	-	-	+	N/A	O	+	N/A	
Maintenance of Traffic	rating	O	O	-	O	N/A	-	-	N/A	
Phased Implementation of Full Build	rating	O	O	O	O	N/A	O	O	N/A	
Project Costs										
New Construction Cost	2005 Dollars	\$52,588,000	\$53,642,000	\$79,986,000	\$50,941,000	\$23,159,000	\$104,017,000	\$120,950,000	\$81,370,000	
Right of Way Cost, including displacements	2005 Dollars	\$55,605,000	\$42,509,000	\$42,509,000	\$45,274,000	\$16,682,000	\$34,543,000	\$37,781,000	\$22,030,000	
Maintain Existing Travel Patterns	rating	O	O	O	-	N/A	-	-	N/A	
Ability to Accommodate Future Expansion	rating	+	-	-	+	N/A	-	+	N/A	
COMPATIBILITY WITH CATSO PRIORITIES										
Conformance with Adopted Local Plans	rating	-	-	-	-	+	-	-	-	
Impact on Local Street System	rating	-	-	-	-	O	+	O	+	
Impact on Land Use Patterns	rating	-	+/-	+/-	-	O	+	O	+	
Impact on Neighborhood Stability	rating	-	-	-	-	O	+/-	+/-	+	
			Recommended Preferred Alternative				Recommended Preferred Alternative	Recommended Preferred Alternative	Recommended Preferred Alternative	

RATING SYSTEM	
Positive Impact/Performs Better than other Alternatives	+
Neutral Impact/No Differentiator	O
Negative Impact/Performs Poorer than other Alternatives	-



Table S-4: Reasonable Alternative Impact Summary Eastern Portion of the Project Area: US-63 to MO-Z
Improve I-70: Columbia Area (SIU 4)

<div><div>IMPROVE</div><div>i70</div></div>	IMPACT CATEGORY	MEASUREMENT	St. Charles Interchange (Mile Markers 130.0 to 132.0)		MO-Z Interchange (Mile Markers 132.0 to 134.0)	
			Reasonable Alt. #1:	Reasonable Alt. #2:	Reasonable Alt. #1:	Reasonable Alt. #2:
			Tight Diamond Interchange	Offset Diamond Interchange	Diamond Interchange	Diamond Interchange w/ NW Loop
RIGHT OF WAY IMPACTS (Existing Land Use within Required Right of Way)						
Residential	acres	2	4	4	5	
Commercial	acres	3	8	9	6	
Industrial	acres	0	0	1	1	
Agricultural (Wooded/Vacant)	acres	21	29	74	62	
Public (Parks and other publicly owned parcels)	acres	0	0	0	0	
Other (e.g. utilities, institutional, fraternal organizations)	acres	0	0	1	1	
Total Right of Way Required	acres	26	41	89	75	
ENVIRONMENTAL IMPACTS						
Wetland Impacts	acres	1	1	0.6	0.6	
Non-Wetland Pond Impacts	acres	0	0.5	1.2	0.7	
100-Year Floodplain Impacts	acres	7	7	1	1	
Stream Crossings	#	13	14	8	8	
Natural Community Impacts	acres	13	15	8	7	
Potential Threatened/Endangered Species Impacts	Yes/No	No	No	No	No	
Number of Sites Requiring Additional Hazardous Material Assessment	#	0	0	1	1	
Secondary and Cumulative Impacts	rating	+	-	O	O	
Visual Impacts - Existing vs. Proposed	rating	O	O	+	+	
COMMUNITY IMPACTS						
National Register of Historic Places Impacted	#	0	0	0	0	
Important Community Resources - Displacement of Structures	#	1 - Regional Sewer Line Structure	2 - Regional Sewer Line Structures	0	0	
Important Community Resources - Property Acquisition	acres	Prairie Assembly of God - 0.5 acres	Prairie Assembly of God - 0.5 acres	Prairie Grove Baptist - 0.4 acres	Prairie Grove Baptist - 0.4 acres	
Potential Impacts to Low Income or Minority Populations (EJ)	rating	-	-	O	O	
Potential for Noise Walls	Yes/No	Yes - Fairway Meadows	Yes - Fairway Meadows	No	No	
DISPLACEMENT IMPACTS						
Residential Impacts (Displacement of Dwelling Units)	#	2	4	2	2	
Total Number of Structures Acquired	#	5	12	18	16	
Business Operation Impacts (Displacement of at Least One Structure)	#	1	4	10	10	
Total Number of Tax Map Parcels Affected	#	91	101	56	58	
ENGINEERING ISSUES						
Comply with MoDOT Access Management Criteria	rating	-	O	O	O	
Construction Staging	rating	O	+	O	O	
Traffic Operations	rating	O	O	O	O	
Maintenance of Traffic	rating	O	+	O	O	
Phased Implementation of Full Build	rating	N/A	N/A	N/A	N/A	
Project Costs						
New Construction Cost	2005 Dollars	\$43,383,000	\$40,048,000	\$42,854,000	\$47,096,000	
Right of Way Cost, including displacements	2005 Dollars	\$3,793,000	\$8,273,000	\$9,392,000	\$3,912,000	
Maintain Existing Travel Patterns	rating	O	O	O	O	
Ability to Accommodate Future Expansion	rating	-	O	O	-	
COMPATIBILITY WITH CATSO PRIORITIES						
Conformance with Adopted Local Plans	rating	O	O	O	O	
Impact on Local Street System	rating	O	O	O	O	
Impact on Land Use Patterns	rating	+	-	+	-	
Impact on Neighborhood Stability	rating	O	O	O	O	
			Recommended Preferred Alternative		Recommended Preferred Alternative	

RATING SYSTEM	
Positive Impact/Performs Better than other Alternatives	+
Neutral Impact/No Differentiator	O
Negative Impact/Performs Poorer than other Alternatives	-



Meeting Summary

IMPROVE I-70 ADVISORY GROUP

13th Meeting

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

May 4, 2005

This is a summary of the key informational and action items from the final meeting of the Improve I-70 Advisory Group.

GENERAL

Members Present: Bernie Andrews, Jeff Barrow, Bob Bechtold, Elaine Blodgett, Skip Elkin, Dave Griggs, Chris Janku, David Mink, Larry Moore, Tom Moran, Justin Perry, Keith Schnarre, Ed Siegmund, Pat Smith, Lorah Steiner and Bob Walters.

Dennis Donald and John Huyler of The Osprey Group facilitated the meeting.

Materials Available at the Meeting

In addition to the agenda, materials, available for discussion at the meeting included:

- A handout listing all the public outreach events that have occurred during the preparation of the Draft EIS for I-70 in the Columbia area.

Meeting Goals

1) Hear about recent activities; 2) Hear from the MoDOT Director about statewide transportation priorities; 3) See the final visualization of I-70 through Columbia; 4) Gain an understanding of input received and the impact on the Draft EIS; 5) Identify next steps in the planning and implementation process.

Preliminary Items

Dennis Donald opened the meeting by welcoming everyone, noting that this would be the Advisory Group's last meeting and reviewing the proposed agenda.

Bob Brendel provided information about the public hearing that took place on February 23, 2005. He also passed out a one-page handout that detailed the 32 public events that have taken place to provide information and solicit public input as the Draft EIS was developed. Since September 2002, and not counting this evening's meeting or CATSO coordination, a total of 1408 people have met to discuss the EIS during the 32 different events.

Bob thanked the Advisory Group particularly for their hard work and timely input that had helped a proposal of this magnitude to proceed with a minimum of public controversy.

ADVISORY GROUP DISCUSSION

The discussion portion of the meeting began with Michelle Graham, of HNTB, showing the “I-70 Central Columbia Visualization” that had been prepared to run continuously at the public hearing. This animation consists of a “fly-over” of the preferred alternative and the ability to simulate circling around the major intersections.

After the visualization the Director of the MoDOT, Mr. Pete Rahn, was invited to address the Group. He also thanked everyone for their work over almost 3 years and spoke about the current big picture in transportation in Missouri. This included his observation that Missouri ranks 43rd in the country in highway revenue per mile.

In answer to a question, Mr. Rahn explained that the current estimate of funding needed to improve I-70 across the state is \$3.1 billion. Several Group members complimented the entire Advisory Group process. Kathy Harvey and Bob Brendel were both mentioned for their particular responsiveness and effectiveness in dealing with the Advisory Group and other Columbia groups and individuals.

The next portion of the agenda involved an overview of comments received in response to the Draft EIS. Buddy Desai of CH2MHill, stated that a total of 12 public comments had been received during the comment period and noted that it is unusual to receive so few comments on an EIS of this magnitude. He cited the issues that had been raised, none of which will require any substantive alteration in the EIS. He noted that the Final EIS will be a shorter document than the Draft.

Mr. Desai then described the schedule and next steps. He expects the Final EIS to be available by the end of June.

On the topic of Implementation, Ms. Kathy Harvey of MoDOT highlighted the approach the Department will use to approach this large project and major financial investment. She noted that the Department is placing an emphasis on practical design and planning and there are ways to reduce the overall project cost for improving I-70 across Missouri. She also clarified that priority areas along I-70 will likely receive funding for construction long before the entire project is complete.

At the end of the meeting Advisory Group members were given the chance to provide closing comments. Many expressed their gratitude for the open and responsive manner in which MoDOT and the consulting team had worked with the Group over its 13 meetings.

The meeting was adjourned with Dennis Donald and John Huyler thanking the Group and committing to provide a meeting summary to the Osprey Group email list as usual.

IMPROVE I-70 ADVISORY GROUP

Meeting 13
4:00-6:00 p.m.
May 4, 2005

Columbia Activity and Recreation Center
1701 W. Ash Street
Columbia, Missouri

Meeting Goals: 1) Hear about recent activities; 2) Hear from the MoDOT Director about statewide transportation priorities; 3) See the final visualization of I-70 through Columbia; 4) Gain an understanding of input received and the impact on the Draft EIS; 5) Identify next steps in the planning and implementation process.

4:00 Convene Meeting
The Osprey Group

4:05 Updates
Bob Brendel, MoDOT

4:15 Remarks from MoDOT Director
Pete Rahn, MoDOT

4:45 I-70 Central Columbia Visualization
Michelle Graham, HNTB

5:00 Comments Received in Response to the Draft EIS
Buddy Desai, CH2MHill

5:15 Schedule and Next Steps for the EIS and Final Decision
Buddy Desai, CH2MHill

5:25 Implementation
Kathy Harvey, MoDOT

5:45 Closing Comments
Advisory Group

6:00 Adjourn

SUMMARY OF SIU 4 PUBLIC EVENTS

EVENT	DATE	LOCATION	ATTENDEES
ADVISORY GROUP MEETINGS			
Advisory Group Meeting #1	9/19/02	Holiday Inn Executive Center	27
Advisory Group Meeting #2	11/7/02	Daniel Boone Regional Library	24
Advisory Group Meeting #3	12/12/02	Daniel Boone Regional Library	18
Advisory Group Meeting #4	1/30/03	Daniel Boone Regional Library	25
Advisory Group Meeting #5	3/13/03	Activity & Recreation Center	25
Advisory Group Meeting #6	5/29/03	Activity & Recreation Center	44
Advisory Group Meeting #7	9/18/03	Activity & Recreation Center	19
Advisory Group Meeting #8	10/23/03	Gentry Middle School	22
Advisory Group Meeting #9	11/20/03	Activity & Recreation Center	24
Advisory Group Meeting #10	2/5/04	Activity & Recreation Center	20
Advisory Group Meeting #11	3/18/04	Activity & Recreation Center	47
Advisory Group Meeting #12	11/18/04	Activity & Recreation Center	15
Advisory Group Meeting #13	5/4/05	Activity & Recreation Center	34
PUBLIC MEETINGS AND HEARING			
Public Meeting	4/23/03	Activity & Recreation Center	55
Public Workshop	8/21/03	Activity & Recreation Center	110
Drop In Center	11/4/03	Day's Inn	197
Public Meeting	12/11/03	Activity & Recreation Center	92
Public Hearing	2/23/05	Knights of Columbus Hall	90
NEIGHBORHOOD MEETINGS			
Rolling Hills Neighborhood Association	9/24/02	Midway Baptist Church	15
Smithton Ridge Neighborhood	5/14/03	Evangelical Free Church	100
Sunrise Neighborhood	3/1/04	Prairie Grove Baptist Church	20
Parkade Niehborhood	3/3/04	Parkade Elementary School	40
Whitegate Neighborhood	3/8/04	Oakland Junior High School	41
Western Columbia Neighborhoods	6/30/04	Activity & Recreation Center	100
PRESENTATIONS			
Columbia Rotary Club	10/22/03	Columbia Country Club	75
Japanese Transportation Delegation	1/9/04	Activity & Recreation Center	25
Columbia Lodging Association	2/25/04	Walton Building	10
Central Missouri Development Council	3/5/04	SubTerra	50
Convention and Visitors Bureau	5/19/04	KMIZ-TV	8
Central Missouri Development Council	5/27/04	Mid-City Lumber	50
Chamber of Commerce Sub-committee	6/30/04	Walton Building	7
Westside Kiwanis Club	4/12/05	Country Kitchen Restaurant	13
TOTAL NUMBER OF PUBLIC EVENTS:		32	TOTAL NUMBER OF ATTENDEES: 1442

CATSO COORDINATION

Quarterly appearances before CATSO Coordinating Committee in 2002, 2003, 2004 and 2005

12/12/02 2/27/03

5/22/03 8/28/03

12/4/03 2/26/04

5/27/04 8/26/04

12/9/04 2/24/05

Presentations at two CATSO public hearings

5/22/03 10/27/04

Informational meeting about Scott Boulevard "placeholder."

6/18/2003