Agenda

Jackson County Commuter Corridors Alternatives Analysis

Stakeholder Advisory Panel

Meeting Two

2:30 p.m.

November 16, 2011

Kansas City Area Transportation Authority, 1200 E. 18th, Kansas City, Mo.

Welcome and Introductions ***Tom Gerend, Mid-America Regional Council*** Shawn Dikes, Parsons Brinckerhoff	**2:30 – 2:40 p.m.**
Process Overview Shawn Dikes, Parsons Brinckerhoff	**2:40 – 2:45 p.m.**
Public Input: Results from Open House 1 Patty Gentrup, Shockey Consulting Services	**2:45 – 2:50 p.m.**
Evaluation Criteria: FTA and Local Considerations Lisa Koch, Parsons Brinckerhoff	**2:50 – 3:05 p.m.**
Alternatives Screening Shawn Dikes, Parsons Brinckerhoff	**3:05 – 3:15 p.m.**
Evaluation Criteria: Advisory Panel Ranking and Discussion	**3:15 – 4:00 p.m.**
Adjourn	**4:00 p.m.**

Next Steps

- November 29 and 30 and December 1 Open Houses

Attachments:

MEMORANDUM

TO: Jackson County Commuter Corridors Stakeholder Advisory Panel

FROM: Patty Gentrup, Shockey Consulting Services

DATE: November 10, 2011

RE: Public Input: Results from Open House 1

Introduction

To gain public input on how to best enhance transit service in the Kansas City metropolitan area, the Project Partnership Team for the Jackson County Commuter Corridors Alternatives Analysis (JCCCAA) hosted several opportunities for community comment during the week of September 26.

A formal open house was sponsored from 4 to 7 p.m. September 27 at the Regional Ennovation Center in Independence. Two complementary open houses were then conducted; one was from 5 to 7 p.m. September 28 at the Mid Continent Public Library in Raytown and the other was from 5 to 7 p.m. September 29 at Union Station in Kansas City, Missouri.

At each event, participants were asked to complete a comment card that asked for input on the project Purpose and Need and the advantages and disadvantages of each of eight initial alternatives. The form was also available online through October 7, 2011. About 160 people attended the open houses. Of those, 79 completed comment cards and three additional responses were received on line.

This memo will summarize the input received through these means.

Summary

Purpose and Need

The purpose of the Jackson County Commuter Corridors AA is as follows:

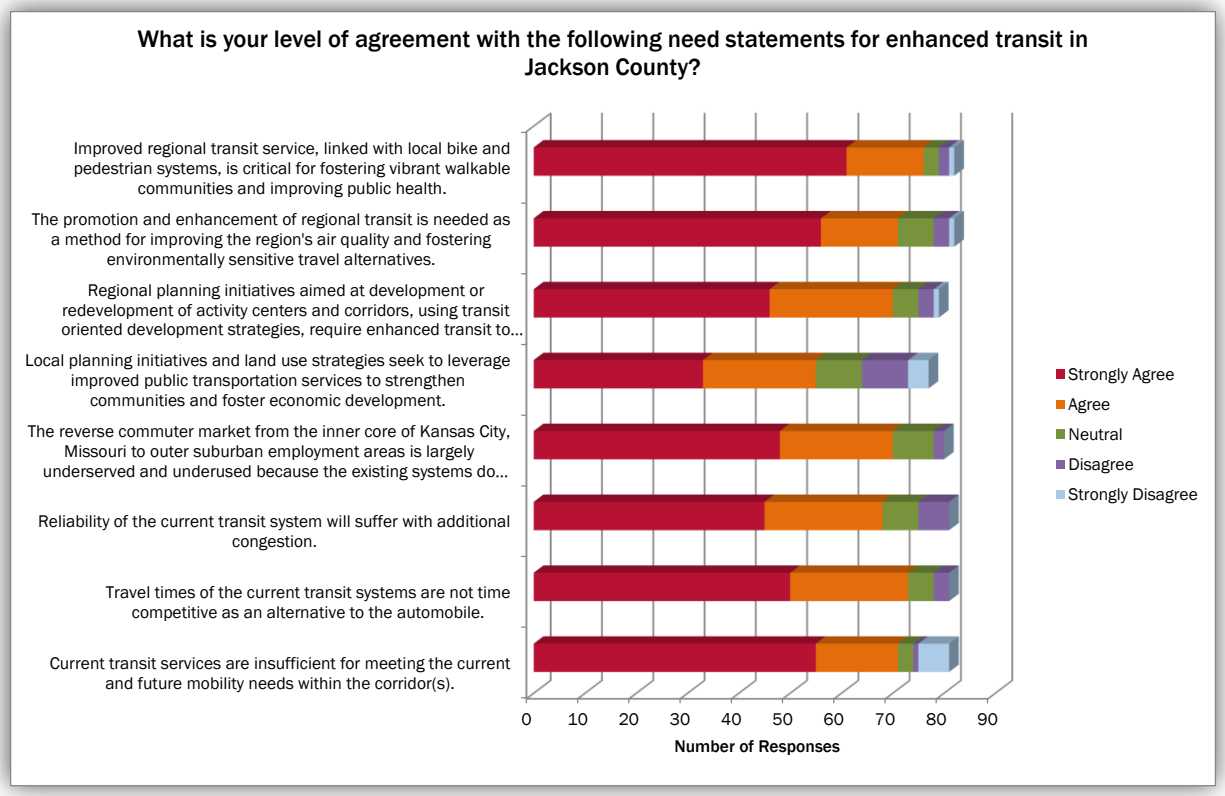
The proposed project will improve transit system performance and usage by addressing the identified transportation needs in the two selected corridors. The project should provide an alternative to operating transit vehicles on congested roadways to improve system reliability, increase the competitiveness of transit for commuting and other purposes and provide added

mobility options for the region. This project should also catalyze redevelopment in and near emerging and future transit centric activity centers and increase the regional transit mode share.

Stakeholders were asked provide their level of agreement with the following eight need statements that support the purpose:

- Current transit services are insufficient for meeting the current and future mobility needs within the corridor(s).
- Travel times of the current transit systems are not time competitive as an alternative to the automobile.
- Reliability of the current transit system will suffer with additional congestion.
- The reverse commuter market from the inner core of Kansas City, Missouri to outer suburban employment areas is largely underserved and underused because the existing systems do not make reverse commuting easy for those who are transit dependent.
- Local planning initiatives and land use strategies seek to leverage improved public transportation services to strengthen communities and foster economic development.
- The promotion and enhancement of regional transit is needed as a method for improving the region's air quality and fostering environmentally sensitive travel alternatives.
- Improved regional transit service, linked with local bike and pedestrian systems, is critical for fostering vibrant walkable communities and improving public health.

Stakeholders overwhelmingly strongly agreed or agreed with the statements as is illustrated in Figure 1 on the next page.



Respondents were also asked whether there were any other goals for enhanced transit that should be considered. Forty-three responses were received. While the same comment was not provided by a majority of respondents, there were some common themes.

- While a core system is needed, transit within communities also needs to be part of the plan.
- Amtrak should add service.
- The system should support economic development and tourism by serving the airport and activity centers such as hospitals, educational institutions, and other services.
- The opportunity for bike and pedestrian facilities should be emphasized.
- The system should extend into Cass County.

In general, however, the input supports the need statements as can be illustrated in this participant's comment: "The statements cover a majority of the transportation issues in the Kansas City area—that the current systems are not sufficient and better/affordable/reliable/well-planned/economically and environmentally sound options are needed."

Advantages and Disadvantages of Each Alternative

After learning about each of the eight alternatives presented at the open houses, respondents were asked to list what they considered the advantages and disadvantages of each of the alternatives.

No Build

Advantages	Disadvantages
The majority of respondents saw no advantages to the no-build option, with the possible exception that it would be low cost. One respondent simply wrote: No! No! No!	Respondents see this as a do-nothing alternative that only continues to contribute to the needs outlined in the Purpose and Need.

Transportation Systems Management (TSM)

Advantages	Disadvantages
Many of the respondents indicated that TSM should be implemented regardless of which other alternative might be implemented. Reasons for doing so included the low cost, coordinated system to improve efficiency, and improvements to air quality.	Comments related to the TSM alternative were that the improvements are minimal and don't go far enough. Respondents also said this means we continue to rely on the car and the "Carless are still tuck in their own zip code if no highway routes are expanded."

Express Bus

Advantages	Disadvantages
Respondents indicated that express bus service would be a lower cost alternative, could supplement existing bus service as well as regional rail, and that routes can be easily adjusted.	The very first comment is "isn't as glamorous or fast as rail." Comments continue to echo that: "not especially sexy-but who needs sexy:" "no pizzazz;" "nothing different than we have today." Respondents also questioned whether ridership on busses would actually increase over what they are today. Finally, respondents said traffic congestion would continue and that it has limited environmental benefits

Bus Rapid Transit

Advantages	Disadvantages
As with express bus, respondents indicated that lower cost alternative, could supplement existing bus service as well as regional rail, and that routes can be easily adjusted. Some also cited that using the aril ROW is practical and a good re-use of infrastructure	Again, respondents echoed the disadvantages cities with express bus: Would bus ridership actually increase? This isn't fuel efficient and doesn't help with traffic congestion; and that again, it's not as glamorous. However, one person did say a disadvantage was that it would not support new development.

Street Car/Light Rail Transit (LRT)

Advantages	Disadvantages
Advantages of the streetcar/LRT option included that it would be fast, seemed fairly affordable, could enhance development with a variety of stops. Respondents also liked the idea of mixing technologies. One respondent did suggest that the downtown streetcar be evaluated before using it elsewhere.	As is often the case, what is an advantage in one perception is a disadvantage to another. Some respondents thought this option was too expensive, too slow, and too limited.

Regional Rail (I-70 Option)

Advantages	Disadvantages
Comments regarding the I-70 option for regional rail primarily focused on how fast such a system would be but had many general statements such as "makes sense;" "this could work;" "I like this;" and, "now we're talking."	Participants predominantly cited the high cost of this option as a disadvantage. They also voiced concern that the speed generally and also specifically along the common line as well as the inability to get to Union Station.

Regional Rail (23rd Street Option)

Advantages	Disadvantages
Respondents echoed their comments about the I-70 Option for the 23rd Street option, really focusing on the technology and not the route itself.	The focus of these comments was how the route would affect neighborhoods in addition to the disadvantages voiced for the I-70 option.

Regional Rail (Trench Embankment)

Advantages	Disadvantages
Respondents echoed their comments about the I-70 and 23rd Street options, really focusing on the technology and not the route itself.	Respondents cited the high cost to make this alternative viable.

Other Comments

When given the opportunity to provide additional comments regarding the alternatives, respondents overwhelmingly shows a support for enhanced transit—not just in Jackson County, but in the region as well. They cited a need for reduced reliance on the automobile and a positive influence on economic development. Below are some sample comments.

- Build it and they will come.
- Good to be looking at alternatives.
- We need to advance transportation alternatives in the region, period.
- I believe with global events, the future costs of transportation will skyrocket. This will cause tremendous hardships. The forethought of this type of system with future communities development and strategic terminals could be a tremendous boom for these communities with these type of systems. A great concept!
- Where does the money come from? It seems only the consultants win. All that said, I think we need to proceed and will support this project.
- Whatever we add to our greater metro transit will be an improvement! A great challenge is selling the idea to a car loving public.
- A very complete study. All we need is money.
- Alternatives 6, 7, 8 are my "dream choices" for future transportation services. Alternative 8 seems to have the last obstacles to construction. Thanks for a good study-looking forward to the rest.

No one was overtly opposed to the alternatives but did raise questions about the alternatives. Sample comments are as follows.

- Concerned about at-grade crossings in Lee's Summit. Also concerned about location of depot stations, parking and increased traffic to residential areas where track is located. What is true demand of commuter traffic from Pleasant Hill to downtown on a daily, hourly basis?
- Have surveyors surveyed proposal to see if land is accommodating? What is trench embankment? How will the project be funded?

- KC region density issues, lack of a downtown center, only 14 percent of jobs in the CBD, lack of existing rail or right of way into KCMO (last several miles) all make getting FTA funding very difficult for a rail system. High cost, low ridership can sink rail.
- People are in love with commuter rail without understanding how little it would contribute to the region's public transit system. Stick with bus/BRT/streetcar and build from the urban core out. Commuter rail reinforces sprawl, and we don't need more of that. It doesn't' do anything for the 80 percent of trips that aren't on commutes.
- The very first light rail train should go to the airport. I can't believe KCI is part of the plan.
- I think the combination of bus, light rail (inner city KC) and commuter rail is the best answer to serve all the needs of KC and eastern Jackson County. I would like to see an alternative that combines the three types of service and see how that might work together.

MEMORANDUM

TO: Jackson County Commuter Corridors Stakeholder Advisory Panel

FROM: Lisa Koch, PB

DATE: November 10, 2011

RE: Evaluation Criteria: FTA and Local Considerations

Introduction

At its November 16 meeting, the Jackson County Commuter Corridors Stakeholder Advisory Panel will discuss the criteria used to evaluate the alternatives under consideration. The criteria fall into two categories. The first are criteria suggested by the Federal Transit Administration (FTA). The second set of criteria is locally developed based upon the established Purpose and Need Statement and goals and objectives.

Following discussion of the criteria, the advisory panel will be asked to consider how the local criteria should be weighted. This will assist the Project Partnership Team and consultant team assess the relative importance of the locally developed criteria and will be used as another factor in analyzing the alternatives.

Please note that this memo will focus only on how the alternatives were evaluated. The results of the screening are presented in a separate memorandum. Following discussion of the results, the advisory panel will be asked to provide input regarding the relative importance of locally-developed criteria for consideration in the next level of screening.

Tier 1 Screening Methodology

The evaluation of alternatives consists of a two-tiered screening process. Tier 1 is largely qualitative and seeks to identify a short list of the most promising alternatives to be advanced for a more quantitative and detailed evaluation in Tier 2. The FTA suggests that five primary perspectives be considered. They are:

- **Effectiveness** measures assess the extent to which the alternatives address the stated needs in the corridor
- **Cost-effectiveness** measures assess the extent to which the costs of the alternatives, both capital and operating, are commensurate with their anticipated benefits.
- **Feasibility** measures the financial and technical feasibility of the alternatives. Financial measures assess the extent to which funding for the construction and operation of each alternative is considered to be readily available. Technical feasibility assesses potential engineering challenges or restrictions that could limit the viability of an alternative.

- **Impacts** assess the extent to which the alternatives could present potential environmental and traffic issues that could be fatal flaws or otherwise influence the selection of a preferred alternative.
- **Equity** assesses the extent to which an alternative's costs and benefits are distributed fairly across different population groups.

For the purposes of the Tier 1 screening for the Jackson County Commuter Corridors, the consulting team applied the following criteria to each of the alternatives.

Effectiveness Measures

Effectiveness directly measures the extent to which the alternative combinations address the Purpose and Need.

Goals	Objectives	Tier 1 Screening Measures
Develop a transit alternative that is competitive with the automobile and can attract new riders	Improve transit travel times and speeds within study area Attract new transit riders	Directness of route (length of each alignment segment) Average transit travel speed
	Increase accessibility to transit	Population and employment concentrations within ¼ mile of alignment
	Provide transit capacity to meet current and future travel demand	Ability of alternative to meet expected demand
Improve transit service reliability within the study area	Improve on-time performance	Length of alignment within fixed-guideway
Develop a transit service that supports regional economic development and land use objectives	Provide transit service that can support desired land use growth patterns. Provide convenient and accessible transit service to existing and planned activity centers.	Number of targeted activity centers served
Develop a transit service that supports regional sustainability goals	Reduce air pollutant emissions, fuel consumption, and VMT/VHT and delay	Qualitative / quantitative assessment of difference in sustainability benefits of modal alternatives

Cost-Effectiveness Measures

Cost-effectiveness assesses the extent to which the costs of the alternatives, both capital and operating, are commensurate with their anticipated benefits.

Evaluation Criteria	Tier 1 Screening Measures
Capital and O&M Costs	Qualitative assessment – high, medium, low
Transit Productivity	NA
Cost-Effectiveness	Qualitative assessment – high, medium, low

Feasibility Measures

Feasibility assesses the financial and technical feasibility of the alternatives. Financial measures assess the extent to which funding for the construction and operation of each alternative is considered to be readily available. Technical feasibility assesses potential engineering challenges or restrictions that could limit the viability of an alternative.

Evaluation Criteria	Tier 1 Screening Measures
Technical Feasibility	Qualitative assessment of constructability, willingness of the railroads to share right-of-way, etc.
Financial Feasibility	Comparison of order-of-magnitude capital cost estimate with estimated funds available for local match

Impact Measures

Impacts assess the extent to which the alternatives could present potential environmental and traffic issues that could be fatal flaws or otherwise influence the selection of a preferred alternative.

Evaluation Criteria	Tier 1 Screening Measures
Environmental Impacts	Qualitative assessment of fatal flaws Sections 4(f) and 106 impacts
Traffic impacts	Qualitative assessment of fatal flaws

Equity Measures

Equity assesses the extent to which an alternative's costs and benefits are distributed fairly across different population groups.

Evaluation Criteria	Tier 1 Screening Measures
Impacts on minority and low-income groups	• Transit-dependent populations concentrations within 1/4 mile of alignments • Concentrations of service sector jobs within 1/4 mile of alignments

Action Requested

Again, the purpose of this memo was simply to provide a review of the Tier 1 screening alternatives. The consultant team will next provide the results of that screening. After receiving the results of screening, the advisory panel will participate in an exercise designed to determine the relative importance of the objectives found within the list of criteria used to evaluate effectiveness.

The chart outlining the goals, objectives and screening measures is on Page 11 of this memo. The advisory panel will focus only on the effectiveness objectives. Those are:

- Improve transit travel times and speeds within the study area
- Attract new transit riders
- Increase accessibility to transit
- Provide transit capacity to meet current and future travel demand
- Improve on-time performance
- Provide transit service that can support desired land use growth patterns
- Provide convenient and accessible transit service to existing and planned activity centers
- Reduce air pollutant emissions, fuel consumption, and VMT/VHT and delay

MEMORANDUM

TO: Jackson County Commuter Corridors Stakeholder Advisory Panel

FROM: Shawn Dikes, PB

DATE: November 10, 2011

RE: Initial Tier 1 Screening

Introduction

The Tier 1 Screening approach reflects the fact that the study area encompasses two separate travel corridors with distinct characteristics, several potential alignment options within each corridor, and multiple transit technologies. These factors add complexity to the evaluation and required consideration of:

- Segmenting the Study Corridors;
- Development of Initial Alignment Alternatives within Each Segment;
- Development of Initial Technology Alternatives;

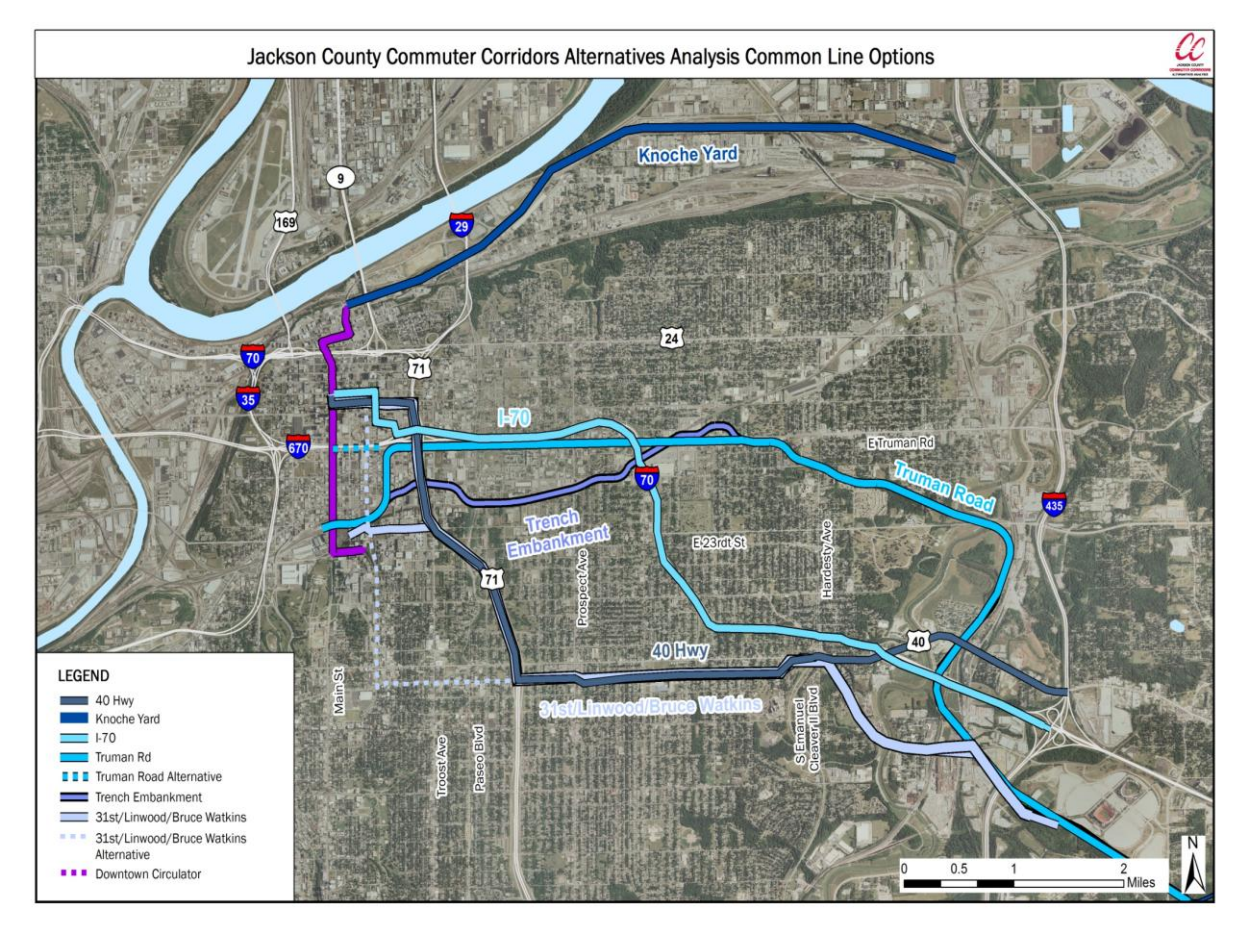
Corridor Segments and Initial Alignment Alternatives

The study team divided the JCCCAA study corridors into three segments to evaluate alignment and technology alternatives. The three segments are:

- Common Segment - Between the regional core and the I-435/I-70 interchange area
- East Segment - Generally from the I-435/I-70 interchange area east and parallel to I-70
- Southeast Segment - Generally from the I-435/I-70 interchange area southeast toward Lee's Summit

It then expanded the universe of alignment alternatives to include other reasonable alignments within each segment. The following chart shows the segment and alignments considered.

Common Segment	East Segment	Southeast Segment
Runs between the urban core and the I-435/I-70 interchange area • Knoche Yard • Truman Road • Trench Embankment • Linwood • I-70	Generally from the I-435/I-70 interchange east and parallel to I-70 • Kansas City Southern ROW • Highway 40 • I-70	Generally from the I-70/I-435 interchange area southeast toward Lee's Summit • Rock Island Railroad • Highway 50-Rock Island • Route 350



Development of Initial Technology Alternatives

The consultant team reviewed the characteristics of a long list of transit technology alternatives against the Purpose and Need for the JCCCAA. At a high level, the following technology alternatives could address the Purpose and Need if applied in all three segments of the study corridors:

- Express Bus (included for the Transportation System Management Alternative)
- Bus Rapid Transit (BRT).
- FRA-Compliant Diesel Multiple Unit (DMU).
- Light Rail Transit (LRT)/Streetcar Hybrid.

Screening of Alternatives

For the screening of alternatives, each alignment option was combined with each transit technology alternative (with the exception of express bus) to create distinct alignment and technology alternatives in each segment. The combinations were evaluated using criteria within five general categories discussed earlier in this packet.

Tier 1 Screening Results – Alternatives Recommended for Elimination

The Tier 1 Screening determined the following alignment and technology options should be eliminated.

- Alternatives that use the Knoche Yard option to the north should only be those that utilize a FRA compliant DMU. As an active freight rail environment, only such a vehicle is practical to operate. Alternatives that use this alignment but rely on BRT, LRT or streetcars simply do not work. This alignment has limited opportunity for stations, operates in a highly industrial area and constrained railroad environment. It is not as conducive to satisfying the project's Purpose and Need as other options.
- Alternatives that use the I-70 alignment in a fixed guideway transit environment are not practical or cost-effective. Such an investment would be very costly and disruptive during construction and require needed travel lanes or the need for additional right-of-way to accommodate existing traffic and the new guideway which may or may not be available. The environmental consequences would also not likely rise to the level of the perceived benefits when clearly there are more viable options. Only a bus in mixed-traffic or perhaps bus on shoulder makes sense for the I-70 alignment.
- Alternatives that use DMUs on city arterials such as Truman Road, Truman via 23rd Street, 31st / Linwood / Bruce Watkins are not as conducive and compatible with the existing environments as other technology options. These arterials are not best suited for a large profile vehicle such as a DMU. The DMU is too disruptive to adjacent neighborhoods, businesses, surrounding properties and parks and would also have noise and vibration impacts and other consequences that don't rise to the level the perceived benefits when clearly they are more viable options.
- Alternatives using the trench embankment have limited utility as the trench acts as a barrier to development. Only the DMU option works in this alignment, other options should be eliminated. The trench embankment as a corridor has limited opportunities to catalyze development or redevelopment and limited potential to capture riders or distribute positive benefits to the community since half of the alignment abuts a barrier in the form of the active rail lines in the trench. Thus the perceived benefits are half those as with other corridors, while the costs and impacts are at a higher level. Given that there are clearly other alignment options that are not as constrained, there are better options than the trench embankment.

Preliminary Tier 1 Screening Results – Potential Alternatives Recommended for Advancement

Work continues on evaluating each of the alternatives as part of the Tier 1 screening. However, based upon the information considered to date, the consultant team is carefully considering advancing the following alternatives to Tier 2. A final recommendation regarding which to advance will come after further consideration of capital and operating costs and agreements that might be negotiated with the railroads.

Preliminary Tier 1 Screening Results: Potential Alternatives for Tier 2 Screening	
Alternative	**Description**
No Build (required)	No Build Alternative - MARC's Long Range Regional Transportation Plan projects
TSM + Best Bus (required)	Transportation System Management Alternative –Low cost systems operational improvements + Express Bus on existing highways (I-70 and MO 350/50) and new/expanded KCATA suburban services, with Bus Rapid Transit (BRT) options on Truman Road and Rock Island Corridor
Full Regional Rail	FRA-Compliant DMU Alternative – DMU to Union Station via Truman Road serving both I-70 (Kansas City Southern) and Rock Island corridors.
Regional Rail/ Street Car Hybrid	FRA-Compliant DMU Alternative with Street Car Connection Alternative – DMU along I-70 (Kansas City Southern) connecting to Multimodal Transfer Center at Truman Sports Complex. Street car on Rock Island, connecting to Truman Sports, and serving as common line service to downtown KCMO.
Full Street Car	Street Car Alternative – Street car via Truman Road serving I-70 corridor with a potential parallel route along Linwood/31st serving Rock Island corridor.