

1.0 INTRODUCTION

This technical report is prepared as part of the East-West Gateway Coordinating Council's (EWGCC) Major Transportation Investment Analysis (MTIA) for the Northside Study Area. The MTIA is a process for identifying transportation problems, evaluating alternative solutions, and reaching decisions on the best overall solution. This report identifies the goals, objectives, and evaluation criteria to be used in comparing the transportation alternatives that are presently under consideration in the Northside Study Area. The evaluation framework will help decision-makers and the public to understand the implications of the alternatives and to make informed choices.

This evaluation methodology recognizes the focus areas that were defined in the EWGCC's long range transportation plan, Transportation Redefined (May 1995) and Transportation Redefined II (March 1999):

- Access to opportunity
- Efficient movement of goods
- Congestion management
- Safety and security
- Resource conservation
- Sustainable development
- System preservation

The methodology also draws upon the recommended evaluation framework and criteria in the EWGCC's St. Louis Performance Measures Study (November 1998). In addition, attention has been given to goals, objectives, and evaluation criteria that reflect the specific needs and aspirations of Northside Study Area residents.

The Northside study is one of three MTIAs that the EWGCC is carrying out concurrently along with the Southside MTIA and the Daniel Boone (West County) MTIA. Thus, the information developed in the Northside MTIA will be designed for two separate but highly interrelated decisions. The first of these decisions is the selection of the alternative or strategy that best meets the needs of the Northside corridor. The second is the selection of the corridor or corridors that will be given priority for investment. It is highly unlikely that the region will have the financial capacity to pursue major investments in all three corridors simultaneously. Thus, this methodology provides for cross-corridor comparisons, providing a technical basis for identifying the most promising corridor for investment.

The remainder of this report is divided into six sections:

- Section 2 describes the planning context for this study
- Section 3 presents the alternatives that have been recommended for analysis in the Northside Study Area
- Section 4 offers a recommended framework for evaluating alternative transportation investments
- Section 5 identifies the goals and objectives that a major investment is intended to achieve in the Northside Study Area
- Section 6 proposes a set of evaluation criteria and a draft evaluation matrix
- Section 7 lists the references that were cited in other sections of this report

2.0 PLANNING CONTEXT

The Northside Corridor was originally conceptualized and roughly illustrated in the St. Louis Systems Analysis for Major Transit Capital Investments (amended June 1991). The need to conduct a MTIA and to consider alternative investment strategies was first identified in the subsequent Regional Transportation Plan for the St. Louis metropolitan area, Transportation Redefined (1995). According to Transportation Redefined, the Northside Study Area warrants the consideration of transportation improvements to address concerns regarding personal mobility and the need for sustainable development in the area. Transportation Redefined identifies this Study Area as having priority for implementation of transportation improvements in the mid-term.

In addition, the Northside Study Area encompasses the majority of the Route 367/U.S. 67 corridor identified in Transportation Redefined. Based on the plan, this corridor warrants consideration for transportation improvements to address concerns related to vehicular safety.

2.1 REGIONAL PLANNING

EWGCC carries out a regional transportation planning process for the St. Louis metropolitan area. The process has six major integrated components:

- Regional Transportation Plan
- Transportation Project Planning
- Regional Project Selection
- Project Implementation
- Project Monitoring and Evaluation
- Community Engagement

The current Regional Transportation Plan, Transportation Redefined II, identifies a set of transportation-related goals and objectives and the policies, services, and facilities needed to meet them over the next 20 years. The plan is fiscally constrained, and sets forth a funding strategy to show where the funds will come from to implement needed transportation improvements while continuing to operate and maintain the existing system. Projects identified in the plan can be selected for advancement and implementation using Federal funds.

The EWGCC's Transportation Improvement Program (TIP) identifies the federally-funded transportation projects to be built in the short term. Currently, the TIP contains a three-year schedule of transportation improvement projects drawn from the Regional Transportation Plan. A project must be included in the TIP to be eligible for Federal funding.

As noted above, Transportation Redefined I and Transportation Redefined II identify the Northside Corridor for study. The Northside MTIA is part of the Transportation Project Planning phase, and is considering alternative ways to meet the study area's transportation needs. As a result of this MTIA, one or more projects may be adopted into the Regional Transportation Plan and eventually added to the TIP. This approval action would be a prerequisite to further advancement with Federal funds. Additional MTIAs are being conducted in the Southside Study Area and the Daniel Boone Study Areas.

At the local level, the 23 incorporated communities and one Census Designated Places (CDP) within the Study Area and the unincorporated parts of St. Louis County vary widely in terms of the status of planning. Some communities have no plan because they are small in both size and population, while others have a totally homogeneous land use, which is almost always single-family residential. Where such plans exist they provide development guidelines.

2.2 RELATED PROJECTS/STUDIES

In addition to the three concurrent MTIAs, several other infrastructure-related studies have been completed or are currently in progress. These studies include the Route 367 Study-Route 367 from I-270 to Route 67 (Lindbergh Boulevard) Final Report (January 1999) and the “St. Louis Downtown Development Action Plan” (1999).

The Cross-County Major Transportation Investment Analysis. Final MTIA Report (September 1997), had a study area that borders the Northside, Southside and Daniel Boone Study Areas. This study boundary roughly followed I-64 and I-170, as well as an area extended south from I-170. This boundary followed the Northside and Southside Study Areas on the west and the Daniel Boone Study Area on the east. Findings and recommendations of this study include a MetroLink extension from Forest Park to Clayton then south to Shrewsbury and Butler Hill Road, and north to Florissant. This Cross-County project is included in all of the alternatives that are being considered in the Northside MTIA.

3.0 NORTHSIDE ALTERNATIVES

The Northside MTIA initially identified thirteen alternatives for consideration. These initial alternatives for the Study Area included a No Build or baseline alternative, a Transportation Systems Management alternative composed of relatively low cost or operational improvements, eight light rail alternatives, a bus rapid transit alternative, and two roadway improvement alternatives. These alternatives were then evaluated using the following screening criteria:

- Accessibility to concentrations of employment and population
- Accessibility to people without cars
- Potential to encourage and serve redevelopment sites or new development opportunities
- Relative impacts to residences, businesses, or sensitive properties
- Ability to serve major travel movements within the Study Area
- Ease of transportation system connectivity
- Physical feasibility (ability to be constructed)
- Relative cost to build

As a result of this screening process, seven of the thirteen alternatives were dropped from consideration and six remain for further analysis and evaluation. The remaining alternatives will be further defined in terms of their physical features and operating characteristics. Travel demand forecasts and cost estimates will be prepared, and environmental and community impact assessments will be performed. The evaluation methodology described in this report will then be used to structure the findings and support the selection of a preferred alternative.

The six alternatives that are recommended for further study in the Northside Study Area, and that will be compared using this evaluation methodology, are:

- Alternative 1 – No Build
- Alternative 2 – Transportation Systems Management (TSM)/Enhanced Bus Service
- Alternative 3 – Light Rail Transit, Natural Bridge Road/West Florissant Avenue
- Alternative 4 – Light Rail Transit, Natural Bridge Road/TRRA Right-of-Way (ROW)/ MetroLink
- Alternative 5 – Roadway, Mo. 367/Lewis and Clark Boulevard/Jennings Station Road
- Alternative 6 – Roadway, Mo. 367/Lewis and Clark Boulevard/Riverview Boulevard/West Florissant Avenue and Riverview Drive/Hall Street

No Build Alternative: The No Build Alternative consists of planned and committed transportation projects that are anticipated to be in place by the year 2020, the planning horizon year for the Northside MTIA. The No Build Alternative represents the future year transportation condition if no further action is taken in the Study Area beyond what is already planned. This alternative is required by federal planning guidelines to provide a basis of comparison to measure the effects of the other alternatives.

Transportation Systems Management/Enhanced Bus Service Alternative: The TSM/Enhanced Bus Service Alternative consists of an integrated package of low cost or operational transportation projects for the Study Area, such as increased bus service, traffic signal coordination and access management along arterial roadways, and intelligent transportation system improvements. In addition, this alternative has a strong set of bus enhancements. These include new express bus services using exclusive and/or semi-exclusive bus lanes along Lewis and Clark Boulevard to Jennings Station Road, then continuing south to I-70 and using the reversible lanes on I-70 into Downtown. In addition, exclusive and/or semi-exclusive bus lanes would begin at I-270 on West Florissant Avenue and continue to Jennings Station Road and, again, connect with I-70. There would be bus route restructuring to compliment the enhanced bus service improvements. The TSM Alternative is required, along with the No Build Alternative, by federal planning guidelines to provide a basis of comparison to the higher cost, high capital investment alternatives.

Light Rail Transit Alternative (Natural Bridge Road/W. Florissant Avenue): This Alternative is a light rail transit facility (MetroLink). This facility would be primarily at-grade, with in-street running. The LRT Alternative would include stations spaced approximately one-half to one mile apart near population and employment centers along the alignment, with exact locations to be determined in later phases of the planning process. Park-and-ride lots could be included at several stations, convenient to roadways and/or the interstates. Bus feeder and circulator buses would provide connections between stations and major destination points not within walking distance (generally greater than one-half mile).

This LRT Alternative would connect the Downtown St. Louis area to I-270 in the vicinity of Florissant Valley Community College. The alignment would begin in Downtown and go north along Tucker Boulevard (or other location east of 14th Street), north on North Florissant Road, then west on Natural Bridge Road. At Natural Bridge Road, the alternative heads northwest, then through the industrial area to Riverview Boulevard. At the intersection of Riverview Boulevard and West Florissant Avenue the alignment turns northwest again, following West Florissant Avenue, terminating in the vicinity of the Community College.

Alternately, the alignment could continue northwest on Natural Bridge Road and turn north at Goodfellow Boulevard to I-70. At I-70 the alignment would head northwest along the I-70 ROW to Jennings Station Road and then continue north on Jennings Station Road to West Florissant Avenue where it would then continue northwest as described above.

Alternately, the alignment could continue northwest on Natural Bridge Road and turn north at Union Boulevard, crossing I-70 to West Florissant Avenue, where it would then continue northwest as described above.

This LRT Alternative is recommended for more detailed study since it uses existing in-street rights-of-way where sufficient rights-of-way exist, which minimizes property takes and costs. This LRT Alternative also would provide service to the areas in the Northside with the greatest population, employment and concentration of zero-car households. It offers the potential for transit-oriented development and neighborhood revitalization and redevelopment. This alternative provides connectivity with the existing MetroLink system in Downtown as well as potential Southside light rail alternatives.

Light Rail Transit Alternative (Natural Bridge Road/TRRA ROW/MetroLink): This LRT Alternative has many of the same features as the other LRT alternative. This alternative also would connect Downtown with North County. Similar to the previous LRT Alternative, the alignment would begin in Downtown and go north along Tucker Boulevard (or another location east of 14th Street), north on North Florissant Road, then west on Natural Bridge Road. The alternative would continue on Natural Bridge Road, but just east of Goodfellow Boulevard the alignment would head southwest along an existing TRRA rail line to the existing MetroLink corridor south of the existing Rock Road Station. The alignment would use the MetroLink corridor and travel north, leaving the corridor in the vicinity of Florissant Road (between the UMSL South and UMSL North Stations) and use an abandoned rail line (now Trailnet Bikeway ROW) running almost parallel to Bermuda Drive. Just south of Ferguson Avenue, the line would turn east and travel in an existing right-of-way to West Florissant Avenue. The alternative would also terminate in the vicinity of the Florissant Valley Community College.

This LRT Alternative is recommended for more detailed study for many of the same reasons as the previous alternative. This alternative also would use in-street as well as railroad rights-of-way, which minimizes property takes and costs, and would provide service to the areas in the Northside with the greatest population, employment and concentration of zero-car households. It offers the potential for transit-oriented development and neighborhood revitalization and redevelopment. This alternative provides an opportunity to connect to future Cross-County, Southside and Westside (Daniel Boone) MetroLink extensions. It also offers direct transit connections between University of Missouri-St. Louis and Florissant Valley Community College.

Roadway Alternative (Mo. 367/Lewis and Clark Boulevard/Jennings Station Road): This Roadway Alternative would provide improvements to Route 367 that would include significant widening and alignment adjustments with intersection changes and enhancements, including potential grade-separations north of I-270 and major improvements on Lewis and Clark Boulevard south of I-270 to Jennings Station Road. The roadway improvements would begin at the intersection of Route 367 with Lindbergh Boulevard and continue south on Route 367 (as a 4-lane freeway) to I-270. From I-270 to Jennings Station Road, Route 367 would continue as a 4-lane parkway. On Jennings Station Road (improvements are already planned south of West Florissant Road), the route would continue as four lanes until I-70 where it would connect with I-70 now under reconstruction.

This alternative is recommended for more detailed study since it connects Downtown with North County more directly and improves safety on Route 367. It also would make use of existing and planned roadway improvements (I-70 reconstruction, Jennings Station Road widening) and existing roadway rights-of-way.

Roadway Alternative (Mo. 367/Lewis and Clark Boulevard/Riverview Drive/West Florissant Avenue and Riverview Drive/Hall Street): This alternative would provide improvements that would be similar to the other Roadway Alternative north of I-270; however, the improvements south of I-270 would be more modest. The improvements to enhance capacity south of I-270 would continue on Lewis and Clark Boulevard to Riverview Drive. At Riverview Drive, heading south, street improvements, including intersection improvements, would not entail any widening but would provide for a smooth traffic flow to West Florissant Avenue. At West Florissant Avenue the alignment heads southwest connecting to I-70.

In addition, Riverview Drive would be upgraded to a parkway, connecting Downtown (via Hall Street and Grand Boulevard and I-70) and I-270.

This alternative is recommended for more detailed study since it improves safety on Route 367 north of I-270. It also would make use of existing roadway improvements (reversible lanes on I-70) and existing roadway rights-of-way. The route also serves the industrial (trucking) area along the riverfront and enhances the existing scenic route.

4.0 EVALUATION FRAMEWORK

This MTIA will develop a considerable body of information on the costs, benefits, and impacts of the six alternatives or strategies summarized in the previous section. An evaluation framework is needed to organize this information in such a way that decision-makers can understand the implications of each alternative and consider the trade-offs involved in selecting a preferred alternative. This Evaluation Methodology identifies the kinds of information the study will need to produce, and provides a structured framework for presenting the information to decision-makers and the public. It identifies the benefits, impacts, and costs that are thought to be of greatest interest to those who will participate in the selection of a preferred strategy. The results of this evaluation will be presented in a subsequent report, once the technical analysis has been completed.

This section of the Evaluation Methodology identifies the separate decisions that are expected to result from the Northside MTIA, and outlines a basic framework for organizing the information necessary for each decision.

4.1 DECISION REQUIREMENTS

This MTIA will need to produce information to support two interrelated decisions – the selection of a preferred alternative for the corridor, and the adoption of the preferred alternative into the EWGCC long-range transportation plan. For the first of these decisions, the Northside alternatives will be compared to see which one best addresses the corridor's current and future transportation and related needs. This evaluation will be based on the specific needs of the corridor. For the second of these decisions, the merits of an investment in the Northside will need to be compared with investments elsewhere in the region, including the Southside and Daniel Boone Study Areas. Since it is unlikely that the region will have sufficient resources to build the best alternative in each corridor at the same time, trade-offs will need to be made and priorities established.

Thus, the evaluation framework to be used in this MTIA will need provide information for both intra-corridor and cross-corridor comparisons. The framework will include one set of evaluation criteria that are reflective of Northside needs. In addition, the framework will include some criteria that will be addressed in all three of the ongoing MTIAs.

In addition, since this MTIA is considering fixed guideway transit alternatives (such as light rail) that might be built with Federal Transit Administration (FTA) funds, this Evaluation Methodology has been designed to address certain FTA requirements. FTA has established a set of New Starts Criteria that it uses to assess the merits of fixed guideway projects at several stages. The agency first applies these criteria after the corridor planning phase is completed and a project has been recommended for advancement into preliminary engineering. From that point on, FTA evaluates each project on an annual basis and makes funding recommendations to Congress. With the FTA measures included within the MTIA framework, local decision-makers will gain an understanding of how each alternative might fare in the national competition for FTA New Starts funding.

4.2 FRAMEWORK

A basic framework for evaluating alternatives in an MTIA is suggested in Federal guidance. In their Major Investment Study Desk Reference, FTA and the Federal Highway Administration recommend that alternatives be considered from four different perspectives:

- Effectiveness – the extent to which each alternative meets established goals and objectives, including community and urban development goals as well as transportation goals.

- Cost effectiveness – to show the trade-off between the effectiveness of an alternative and its capital and operating costs.
- Financial feasibility – the ability of the region to obtain the financial resources needed to build and operate an alternative.
- Equity – the distribution of costs and benefits.

The evaluation framework for the Northside MTIA will use the four FTA/FHWA perspectives as a basic organizing structure. Within this structure, Regional and Northside goals and objectives will be used to establish the specific evaluation criteria to be addressed. The goals and objectives to be used are presented in Section 5 of this Methodology, and the specific evaluation criteria are presented in Section 6.

The evaluation framework will consist of two parts:

- An evaluation matrix in which the alternatives are arrayed on one axis and the criteria on another. The cells of the matrix will contain quantitative or qualitative indicators of how well an alternative performs on a particular criterion.
- A cogent discussion highlighting the significant differences between the alternatives and the trade-offs to be made in making a selection.

The evaluation matrix will serve as a summary of those technical findings that are considered to be most important to the decisions at hand. No weighting or scoring will be done to suggest that any one measure is more important than the others. Rather, each decision-maker and interested stakeholder will be able to review the technical findings and to determine for himself or herself those factors which are most important to them. As appropriate, the discussion of significant differences and trade-offs can be used to provide some sense of proportion and the relative significance of the technical findings.

5.0 GOALS AND OBJECTIVES

The EWGCC's long range transportation plan, Transportation Redefined (May 1995), established seven focus areas around which the needs of the region's transportation users are clustered:

- Access to opportunity
- Efficient movement of goods
- Congestion management
- Safety and security
- Resource conservation
- Sustainable development
- System preservation

These seven focus areas provide the basic categories or topics to be addressed in determining the effectiveness of each alternative in meeting the goals and objectives of the St. Louis metropolitan area.

The specific transportation needs of the Northside Study Area are defined in the Purpose and Need Statement (July 1999) that was prepared as part of this MTIA. These needs reflect a variety of early technical analysis activities conducted as part of the MTIA, as well as early stakeholder/public involvement activities. The Purpose and Need Statement translated these needs into five goals and supporting objectives that roughly correspond to the EWGCC's focus areas.

Access to Opportunity

Goal: Improve access to opportunities for Northside Study Area residents and businesses

Objectives:

- Reduce total travel time by transit to neighborhood, Study Area and regional opportunities including jobs, medical care, shopping, education, and places of worship
- Reduce travel times from the northern portion of the study area to downtown St. Louis
- Improve public transportation to facilitate people traveling between the Study Area and job locations
- Provide a balanced transportation system through increased transportation options
- Improve direct north-south connections

Safety and Security in Travel

Goal: Improve the personal and vehicular safety of the transportation system in the Northside Study Area.

Objectives:

- Reduce the accident rate on Northside Study Area roadways, particularly on Route 367, through physical and operational improvements
- Improve personal safety through enhanced neighborhood vitality; transportation supporting land uses

Sustainable Development

Goal: Maintain and/or enhance Northside Study Area neighborhoods

Objectives:

- Implement transportation improvements that will help to reverse or slow the loss of population

- Invest in new and/or improved transportation services and infrastructure that contribute to maintaining and/or enhancing quality of life and personal safety in stagnating or declining neighborhoods
- Integrate transportation infrastructure investments and land development or redevelopment in ways that are economically sustainable and consistent with community values and historic preservation

Movement of Goods

Goal: Improve the movement of goods/freight within and through the Northside Study Area

Objectives:

- Improve truck traffic within and through the Study Area by reducing conflicts between trucks and autos
- Improve the connectivity of the existing roadway system through roadway improvements, particularly north-south connections for trucks

Cost Effectiveness

Goal: Provide transportation system improvements that maximize attainment of the above goals within the financial constraints of the transportation-providing agencies within the region

Objectives:

- Maximize the cost-effectiveness of the transportation system improvements within the Northside Study Area

The next section shows how the four FTA/FHWA evaluation perspectives, the seven regional focus areas, and the Northside goals and objectives all relate to one another, and provides a set of specific evaluation criteria for comparing the six Northside alternatives.

6.0 EVALUATION CRITERIA

This section identifies the specific evaluation criteria or measures of effectiveness that will be used to compare the final set of alternatives for the Northside MTIA. Many of the criteria are drawn from the St. Louis Performance Measures Study (November 1998) developed by EWGCC.

Table 6-1 presents the list of recommended evaluation criteria for the Northside MTIA. Criteria have been included for both intra-corridor and cross-corridor comparisons. The criteria shown in bold italic print will be addressed in all three of the ongoing MTIAs. While some of these may not be particularly relevant or useful for comparing alternatives within the Northside Study Area, they do address the region's adopted focus areas and thus may provide insights that are relevant for establishing regional funding priorities. Those criteria that are not in bold italic print have been selected for use in addressing the goals and objectives that are unique to the Northside Study Area.

The table includes criteria addressing the regional focus areas and each of the Northside goals and objectives. A significant number of the criteria address the regional and Northside goal of improving access to opportunity. Goods movement, safety and security, resource conservation and sustainable development are also covered. Criteria are also included for each of the evaluation perspectives recommended by FTA/FHWA.

The selected criteria will differentiate between the various investment alternatives that are being considered in the Northside Study Area. For example, the transit alternatives can be compared in terms of such factors as transit travel time; transit ridership; service to existing residences, jobs, and low income households; and cost. The roadway alternatives can be compared with each other in terms of highway travel time, delay, level of service, and cost. A number of the criteria will be useful for cross-modal comparisons between transit improvements and highway improvements. These include travel time savings, mode share, vehicle miles of travel, displacements, land consumption, and financial feasibility.

FTA's New Starts Criteria are included to the extent that they will be helpful in distinguishing among the Study Area alternatives. Some of FTA's criteria are more regional in nature – such as the metropolitan area's air quality attainment status, and the region's financial capacity. These have not been included at this time. If this MTIA leads to a decision to advance a fixed guideway project for FTA funding, information addressing all of FTA's criteria will be assembled.

Data for addressing the evaluation criteria will come from a variety of sources. Many will come directly from or are derived from the travel demand forecasting and environmental impact assessment done in Task 10. Cost estimates will be produced in Task 11, and the financial feasibility analysis will be an output of Task 12.

Table 6-2 provides the evaluation matrix that will be used to summarize the technical results and compare the Northside alternatives in Task 13. This matrix will be accompanied by a narrative discussion of the significant trade-offs to be made in the selection of the preferred alternative.

**TABLE 6-1
PROPOSED EVALUATION CRITERIA**

Perspectives	EWGCC Focus Areas	Northside Goals	Northside Objectives	Evaluation Criteria (a, b)
Effectiveness	Access to Opportunity	Improve access to opportunities for Northside Study Area residents and businesses	<ul style="list-style-type: none"> • Reduce total travel time by transit • Reduce travel time from northern portion of study area to downtown • Provide a balanced transportation system through increased transportation options • Improve direct north-south connections 	<ul style="list-style-type: none"> • <i>Annual hours of travel time savings compared with No Build and TSM (FTA measure)</i> • Transit travel time between Florissant Valley Community College and downtown in peak period • Transit travel time between Spanish Lake and downtown in peak period • Transit travel time between Natural Bridge/Grand and Clayton in peak period • Highway travel time between Florissant Valley Community College and downtown in peak period • Highway travel time between Spanish Lake and downtown in peak period • Number of Northside households within 30 minutes of downtown by transit in peak period • Number of Northside households within 30 minutes of downtown by highway in peak period • Number of Northside households within 30 minutes of I-64/Ballas Road by transit in peak period • Number of existing Study Area households within ½ mile of a LRT station • Number of existing Study Area jobs within ½ mile of a LRT station • Change in hours of highway travel delay within Study Area (annual, compared with No Build) • Number of new transit riders (linked trips, annualized, compared with No Build) • Change in transit mode share for all work trips originating in Study Area (compared with No Build)

TABLE 6-1 (continued)

Perspectives	EWGCC Focus Areas	Northside Goals	Northside Objectives	Evaluation Criteria (a)
	Efficient Movement of Goods	Improve the movement of goods/freight within and through the Northside Study Area	<ul style="list-style-type: none"> • Improve truck traffic within and through the Study Area by reducing conflicts between trucks and autos • Improve the connectivity of the existing roadway system, particularly north-south connections for trucks 	<ul style="list-style-type: none"> • Total number of through lanes on arterial roadways connecting I-70 and I-270
	Safety and Security	Improve the personal and vehicular safety of the transportation system in the Northside Study Area	<ul style="list-style-type: none"> • Reduce existing accident rate, particularly on Route 367 • Improve personal safety through enhanced neighborhood vitality, transportation supporting land uses 	<ul style="list-style-type: none"> • Number of high accident locations that are improved • Level of service on Route 367, Route 67, and Interstate System in peak period • Number of walk-access transit riders
	Resource Conservation			<ul style="list-style-type: none"> • Change in vehicle miles of travel within the Study Area (daily, compared with No Build) • Acres of land converted to transportation uses
	Sustainable Development	Maintain and/or enhance Northside Study Area neighborhoods	<ul style="list-style-type: none"> • Reverse or slow the loss of population, particularly in North City • Maintain and/or enhance quality of life and safety in stagnating or declining neighborhoods • Integrate transportation and land development in ways that are economically sustainable and consistent with community values and historic preservation 	<ul style="list-style-type: none"> • Amount of investment in neighborhood amenities (e.g., sidewalks, bicycle facilities, lighting, landscaping) • Number of households displaced • Number of jobs displaced • Number of joint development opportunities created • Number of historic sites adversely affected
	System Preservation			<ul style="list-style-type: none"> • Lane miles of existing highways that are rebuilt • Number of buses >12 years old
Equity				<ul style="list-style-type: none"> • Low income households within ½ mile of transit stop (FTA measure) • Number of low income or minority households displaced
Cost Effectiveness		Maximize attainment of above goals within financial constraints of the region	<ul style="list-style-type: none"> • Maximize cost effectiveness 	<ul style="list-style-type: none"> • Incremental cost per new transit trip (FTA measure) • Cost per hour of travel time savings

TABLE 6-1 (continued)

Perspectives	EWGCC Focus Areas	Northside Goals	Northside Objectives	Evaluation Criteria (a)
Financial Feasibility		Maximize attainment of above goals within financial constraints of the region		<ul style="list-style-type: none"> • <i>Capital cost</i> • <i>Operating and maintenance cost</i> • <i>Availability of funds for capital costs (subjective assessment: high, medium or low)</i> • <i>Availability of funds for O&M costs (subjective assessment: high, medium, or low)</i>

- (a) Measures of effectiveness shown in bold italics will be addressed in all three corridors, for use in cross-corridor evaluations.
(b) The measures of effectiveness comprise the proposed evaluation methodology and are subject to change.

**TABLE 6-2
PROPOSED EVALUATION MATRIX**

	1	2	3	4	5	6
	No Build	TSM/ Enhanced Bus	LRT: Natural Br./W. Florissant	LRT: Natural Br./ TRRA ROW/ MetroLink	Roadway: Mo. 367/ Lewis & Clark Blvd.	Roadway: Mo. 367/ Riverview Drive
Effectiveness: Access to Opportunity						
Annual hours of travel time savings compared with: No Build and TSM (FTA measure)						
Transit travel time between Florissant Valley Community College and downtown in peak period						
Transit travel time between Spanish Lake and downtown in peak period						
Transit travel time between Natural Bridge/Grand and Clayton in peak period						
Highway travel time between Florissant Valley Community College and downtown in peak period						
Highway travel time between Spanish Lake and downtown in peak period						
Number of Northside households within 30 minutes of downtown by transit in peak period						
Number of Northside residents within 30 minutes of downtown by highway in peak period						
Number of Northside households within 30 minutes of I-64/Ballas Rd. by transit in peak period						
Number of existing Study Area households within 1/2 mile of a LRT station						
Number of existing Study Area jobs within 1/2 mile of a LRT station						
Change in hours of highway travel delay within Study Area (annual, compared with No Build)						
Number of new transit riders (linked trips, compared with No Build)						
Change in transit mode share for all work trips originating in Study Area (compared with No Build)						
Effectiveness: Safety and Security						
Number of high accident locations that are improved						
Level of service in peak period: MO 367 US 67 I-70 I-270						
Number of walk-access transit riders						
Effectiveness: Resource Conservation						
Change in VMT within the Study Area (daily, compared with No Build)						
Acres of land converted to transportation uses						
Effectiveness: Sustainable Development						
Amount of investment in neighborhood amenities						
Number of households displaced						
Number of jobs displaced						
Number of joint development opportunities created						
Number of historic sites adversely affected						
Effectiveness: System Preservation						
Lane miles of existing highways that are rebuilt						
Number of buses > 12 years old						
Equity						
Low income households within 1/2 mile of transit stop (FTA measure)						
Number of low income or minority households displaced						
Cost Effectiveness						
Incremental cost per new transit trip (FTA measure)						
Cost per hour of travel time savings						
Financial Feasibility						
Capital cost (millions)						
Operating and maintenance cost (million per year)						
Availability of funds for capital costs						
Availability of funds for O&M costs						

Note: Proposed evaluation framework subject to change.

7.0 REFERENCES

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