



EAST-WEST GATEWAY

COUNCIL OF GOVERNMENTS

Creating Solutions Across Jurisdictional Boundaries

MEMORANDUM

TO: Transportation Planning Committee
FROM: East-West Gateway Staff
DATE: September 2, 2016
SUBJECT: Wednesday, September 7, 2016 meeting

The next meeting of the joint Illinois/Missouri Transportation Planning Committee (TPC) is scheduled for **Wednesday, September 7, 2016 at 2:00 p.m. at East-West Gateway Council of Governments offices.** (Reminder parking is available at Stadium-East Garage)

If you have any questions or concerns regarding the enclosed materials or the upcoming meeting please contact EWGCOG. The agenda for the meeting is as follows:

AGENDA

1. Call to order
2. Draft Criteria for Local Program Applications – Surface Transportation Block Grant Program
3. Other Business
 - Next Meeting Scheduled for Wednesday, October 5, 2 PM

Jefferson County
Ken Waller
County Executive
Jefferson County

Madison County
Alan Dunstan
Chairman, Madison County Board

St. Louis County
Steve Stenger
County Executive
St. Louis County

St. Charles County
Steve Ehlmann
County Executive
St. Charles County

Franklin County
John Griesheimer
Presiding Commissioner
Franklin County

St. Clair County
Mark A. Kern
Chairman, St. Clair County Board

Monroe County
Terry Liefer
Chairman, Board of Commissioners
Monroe County

St. Louis City
Francis G. Slay
Mayor, City of St. Louis

Franklin County
Ron Blum
Franklin County

Southwestern Illinois Council of Mayors
Mark Eckert
President, Southwestern Illinois Council of Mayors

St. Louis County Municipal League
Barry Glantz
St. Louis County Municipal League

Southwestern Illinois Metropolitan & Regional Planning Commission
John Hamm III
President, Southwestern Illinois Metropolitan & Regional Planning Commission

City of East St. Louis
Emeka Jackson-Hicks
Mayor, City of East St. Louis

St. Louis County
Reggie Jones
St. Louis County

Madison County
Jack Minner
Madison County

St. Clair County
Roy Mosley
St. Clair County

City of St. Louis
Lewis Reed
President, Board of Aldermen
City of St. Louis

Southwestern Illinois Council of Mayors
Tom Smith
Vice President,
Southwestern Illinois Council of Mayors

St. Charles County
John White
St. Charles County

Regional Citizens
Barbara Geisman
C. William Grogan
Richard Kellett
John A. Laker
Dave Stoecklin

Illinois Department of Transportation
Roger Driskell
Illinois Department of Transportation

Missouri Office of Administration
Brian May
Missouri Office of Administration

Missouri Department of Transportation
Patrick McKenna
Missouri Department of Transportation

Bi-State Development
John Nations
Bi-State Development

Illinois Department of Commerce and Economic Opportunity
vacant
Illinois Department of Commerce and Economic Opportunity

James M. Wild
James M. Wild

Gateway Tower
One Memorial Drive, Suite 1600
St. Louis, MO 63102-2451

314-231-6120
314-231-6120
Fax 314-231-6120

webmaster@ewgateway.org
www.ewgateway.org

Missouri and Illinois

Joint Transportation Planning Committee Meeting Notes

September 2016

The Missouri and Illinois Joint Transportation Planning Committee (TPC) Meeting was held in the Council offices on Wednesday, September 7, 2016 at 2:00 p.m.

Missouri Members in Attendance

Randall Glaser, MoDOT (for Wesley Stephen)

Mike Henderson, MoDOT

Ted Medler, St. Louis County

Ron Williams, Franklin County

Jason Jonas, Jefferson County

Amanda Brauer, St. Charles County

Grace Kyung, Trailnet

Tracy Beidleman, BSDA/Metro

Jessica Medford-Miller, Metro (via phone)

Rich Bradley, City of St. Louis

Pat Kelly, St. Louis County Municipal League

Illinois Members in Attendance

Lora Rensing, IDOT (for)

Aaron Metzger, Monroe County

Mark Gvillo, Madison County

Jim Fields, St. Clair County

Bill Grogan, St. Clair County Transit District

Members Absent

Hart Nelson, St. Louis Regional Chamber

Craig Tajkowski, St. Charles County

Maurice Falls, St. Louis

Others in Attendance:

Chris Fraley, FHWA-Illinois

Vontra Gilts, FHWA-Illinois

Betsy Tracy, FHWA-Illinois

Jeremiah Shuler, FTA

Shannon Graves, FTA

Mark Bechtel, FTA

Jerry Kane, Illinois Member

Mark Steyer, Madison County Transit

Holly Ostdick, IDOT

Jon Schaller, IDOT

Dan Sommer, IDOT

Jim Mollet, IDOT

Kevin Jemison, IDOT

Curtis Jones, IDOT

John Kohler, City of St. Louis

Chris Smith, Illinois Member

John Miller, Illinois Member

EWGCOG Staff:

Peter Koeppel, Sonya Pointer, Christopher Michael, Jason Lange, Larry Grither, Melissa Theiss, Rachael Pawlak, Anna Musial, Jerry Blair

CALL TO ORDER

The meeting was called to order by Jason Jonas, Chair.

ITEMS

Draft Criteria for Local Program Applications – Surface Transportation Block

Grant Program – Peter Koeppel presented the draft criteria developed to update the

Surface Transportation Block Grant (STBG) application and evaluation process. He presented a brief background on performance based planning, which was introduced in 2012 with MAP-21. With performance-based planning, Metropolitan Planning Organizations are accountable for setting targets and staying consistent with the long-range plan. He provided an overview of the FAST Act (Fixing America's Surface Transportation) that was signed into law in December 2015 and how the proposed changes to the project evaluation process will better align with the changes, goals, and performance measures in the new transportation law. He emphasized that this is not just a requirement but also a good idea, since better performance could enable increased funding.

The purpose of revamping the evaluation process is to encourage and fund projects that will help move the needle on performance measures. Since STBG is a flexible pot of money, it is also important to make sure that different types of projects are competing against each other, so set-asides and silo funding will not be used. He then presented details on the new application process, including the six application types, cost/usage calculations, a breakdown of the points system, and the proposed beta test for the next application round. The next round of applications will be funded based on the current scoring criteria, but additional data will be required so that staff can internally evaluate projects based on the new scoring criteria. It was explained that all six applications are

available for review, and are still under development. Feedback is welcome over the course of the next month, and at the October TPC meeting. The meeting was then opened for questions and discussion.

Q: Are Congestion Mitigation and Air Quality (CMAQ) program funds still going to be around?

A: Jason Lange – Yes, CMAQ and Transportation Alternatives Program (TAP) applications will remain the same, we are only proposing changes to STP.

Q: Jeremiah Shuler – Has the possibility of including planning studies been discussed?

A: Peter Koeppel – It has been discussed, but that is a local decision and we have decided to prioritize capital improvement projects.

Q: John Kohler – A significant amount of CMAQ funds are available to traffic flow/congestion mitigation projects, so why is there a duplicate Traffic Flow STP application?

A: Jason Lange – CMAQ funds do not allow for projects that are adding lanes or expanding capacity, so this application gives those projects a way to apply.

Q: Randall Glaser – Do you anticipate sponsors submitting applications for both STP and CMAQ to see which would get funded?

A: Jason Lange – No, sponsors are only able to submit one application per project.

Q: Jason Jonas: Is October's meeting going to be an action item to vote on the new application or just question and answer?

A: Jason Lange - It should be just question and answer since we will continue making adjustments to the criteria as we receive feedback. To be clear, the next round of applications will be scored based on the existing criteria. After the beta test we will adjust the application as needed.

Q: John Kohler – I understand the 10 points for cost/usage is still under development. It looks like streetscape projects, with high costs and low person miles traveled, will be disadvantaged by the system as it is currently set up.

A: Peter Koeppel – This is why we are testing the new evaluation first. But ideally, a streetscape project would score well in the other, value-added measures, and may not need the additional 10 points in cost/usage to get funded.

Q: Mike Henderson – Will there be any sort of additional weighting or decision-making criteria on the applications other than the 110 points, or will there just be a cut-off at the funding level? Is the score the end-all?

A: Jason Lange – No there isn't any additional evaluation. The score is the end-all. Projects that score high enough to be above the funding cut-off will be awarded, regardless of project type.

Q: Jason Jonas – Will the results of the beta test evaluation be released so we can see how they compare and to make sure it is something that the sponsors are all comfortable with? Something that shows a level of confidence in the new criteria.

A: Pete Koeppel – It hasn't been discussed, but that's actually a good idea and we can look into it.

Q: How are the projects viewed through the lens of all six categories? How will a 95-point transit project score against a 95-point road project?

A: Peter Koeppel – That gets as the previous question – it will be viewed the same.

Q: Jeremiah Shuler – Is there a desire to spread the money throughout the categories?

A: Peter Koeppel – The desire is to fund the best projects, regardless of category.

Q: Jason Jonas – One thing I'm concerned about is that there is a priority emphasis on preservation and safety projects in *Connected2045*, yet this scores all categories equally. The current rating system has a point multiplier for preservation projects.

A: Jason Lange – In the point breakdown, the majority of points do prioritize preservation or safety in those applications, and the rest is value-added. The idea is to keep the focus on preservation.

A: Peter Koeppel – The idea is also to get more well-rounded projects that cover a lot of bases and performance measures.

Q: Lora Rensing – In Illinois, we've had the policy of awarding at least one project per county, will that policy remain?

A: Jason Lange – Yes, that policy will stay the same.

Q: Lora Rensing – This has been asked this in the past, but if a County only submits one project and it doesn't score well, how will that be addressed?

A: Jason Lange – Based on the current policy, that project would be brought up to the funding level.

Q: Jeremiah Shuler – The reason policies like those are highly discouraged, is because some areas are not transit supportive. Funding projects that are geographically designated takes money away from transit supportive communities, and is really against the spirit of regional decision making.

A: Jerry Blair – That is a Board-adopted policy.

Q: John Kohler – For clarity, how will cost factor in on two similarly scoring project? Will it be a cost/benefit ratio like in the past?

A: Peter Koeppel – As it is now, there will be five points for cost and five points for usage, but that is not set in stone at the moment.

Q: Randall Glaser – Are you going to be making tweaks to the applications after the 30-day comment period or are these essentially final drafts as of now?

A: Jason Lange – Feedback from focus groups has been incorporated but adjustments are ongoing.

Q: Randall Glaser – Under preservation, in the Active Transportation application, MODOT is concerned about using PSR ratings. It might be better to do a yes/no score.

MODOT is going to look at the project as either ADA compliant or not. It shouldn't matter how new it is or the condition if it is non-compliant.

A: Peter Koeppel – That is noted, we will look into it.

Q: Grace Kyung – Is there anything specifically that has come up across that board that you want us to be looking at?

A: Jason Lange – Cost/usage has come up in pretty much each group.

A: Jason Jonas – In most of the focus groups I was in the focus was on the points breakdown.

A: Randall Glaser – There was also concern about how project categories will compare and compete against each other.

Q: Ted Medler – Is Missouri TAP still planned for middle of next year?

A: Jason Lange – Yes, the next Transportation Alternatives Programs (TAP) application round for Illinois and Missouri will be next summer sometime. STP and CMAQ will be on the same schedule as usual, and I will have that at our next meeting. We will also have the usual workshops to educate sponsors on additional data needed.

Q: Will the workshops be in November?

A: Jason Lange – Yes, they will tentatively be in November-December.

Q: Do we know if the funding amounts will be about the same as this year?

A: Jason Lange – No, we don't usually know funding amounts until January.

Other Business – The next TPC meeting is scheduled for October 5 at 2:00 pm.

Meeting Adjourned.



EAST-WEST GATEWAY

Council of Governments

Creating Solutions Across Jurisdictional Boundaries

Ken Waller
 County Executive
 Jefferson County
 Alan Dunstan
 Chairman, Madison County Board
 Steve Stenger
 County Executive
 St. Louis County
 Steve Ehlmann
 County Executive
 St. Charles County
 John Griesheimer
 Presiding Commissioner
 Franklin County
 Mark A. Kern
 Chairman, St. Clair County Board
 Terry Liefer
 Chairman, Board of Commissioners
 Monroe County
 Francis G. Slay
 Mayor, City of St. Louis
 Ron Blum
 Franklin County
 Mark Eckert
 President, Southwestern Illinois
 Council of Mayors
 Barry Glantz
 St. Louis County Municipal League
 John Hamm III
 President, Southwestern Illinois
 Metropolitan & Regional
 Planning Commission
 Emeka Jackson-Hicks
 Mayor, City of East St. Louis
 Reggie Jones
 St. Louis County
 Jack Minner
 Madison County
 Roy Mosley
 St. Clair County
 Lewis Reed
 President, Board of Aldermen
 City of St. Louis
 Tom Smith
 Vice President,
 Southwestern Illinois
 Council of Mayors
 John White
 St. Charles County
Regional Citizens
 Barbara Geisman
 C. William Grogan
 Richard Kellett
 John A. Laker
 Dave Stoecklin
 Roger Driskell
 Illinois Department of
 Transportation
 Brian May
 Missouri Office of Administration
 Patrick McKenna
 Missouri Department of
 Transportation
 John Nations
 Bi-State Development
 vacant
 Illinois Department of Commerce
 and Economic Opportunity
 James M. Wild

To: Transportation Planning Committee

From: Council Staff

Date: September 2, 2016

Subject: Draft Criteria for Local Program Applications - Surface Transportation Block Grant Program (STP-S)

Background

The current transportation law, Fixing America's Surface Transportation (FAST) Act, continues the reforms begun by the previous law, Moving Ahead for Progress in the 21st Century (MAP-21). This includes the transitioning to a performance-driven, outcome-based program, and the establishment of performance goals for Federal-aid highway programs (23 USC 150). Performance-based planning and programming ensures that resources are invested in projects that make progress toward achieving critical outcomes for the region

As the Metropolitan Planning Organization for the St. Louis region, East-West Gateway Council of Governments is charged with developing a performance-based long-range transportation plan, as well as a corresponding project evaluation structure for developing the Transportation Improvement Program (TIP) (23 USC 134 (j)).

Projects in the TIP must be consistent with the investment priorities (ten guiding principles) of *Connected2045*, the long-range transportation plan for the St. Louis region, and link the priorities to the performance goals. These investment priorities guide transportation system evaluation and decision making, which includes the selection of STP-S projects. STP-S provides flexible funding that may be used by localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects.

The policies in *Connected2045* reflect regional and national goals and guide the prioritization of federal funding for all modes of transportation, including roads, bridges, public transportation, freight, bicycle, pedestrian, and paratransit. To align with the goals of *Connected2045*, East-West Gateway is revising the project application and selection process for the STP-S program to ensure that projects of all types are considered equally for funding, based on a performance-driven approach.

Gateway Tower
 One Memorial Drive, Suite 1600
 St. Louis, MO 63102-2451

314-231-6120
 314-231-6120
 Fax 314-231-6120

webmaster@ewgateway.org
 www.ewgateway.org

STP-S Application Criteria

There are six proposed STP-S application types: Road and Bridge Infrastructure, Safety, Traffic Flow, Freight and Economic Development, Active Transportation, and Transit. Each project application includes criteria based on the guiding principles in *Connected2045*. These principles as well as the performance measures they are addressing are detailed on page 4.

East-West Gateway staff sought feedback from six focus groups consisting of representative regional experts. Each focus group concentrated on one of the six application types. Two meetings were held for each of the focus groups to discuss criteria within each application type and to provide feedback to East-West Gateway. For those who could not attend a focus group meeting, feedback was also accepted by e-mail or telephone. Feedback from the focus groups was incorporated into the draft criteria.

Each of the six applications are based on a scale of 100 points that can be accumulated in areas related to the guiding principles of *Connected2045*. In each of the applications, the primary focus is assigned the highest number of points and the remaining principles receive points as added value to the project's purpose. All applications types will compete against each other for available funding. Funding will not be 'in silos' or set-aside by application type.

Cost and usage points are proposed to be included in the final scoring of the project. However, determining the cost and usage is still under development. These points would be in addition to the 100 points allocated by the project application. One possible allocation of these additional cost/usage points (up to 10 points) can be found in the table below:

Cost (Federal)	Points	Usage (person miles of travel)	Points
Quintile 1 (lowest)	5	Quintile 1 (lowest)	1
Quintile 2	4	Quintile 2	2
Quintile 3	3	Quintile 3	3
Quintile 4	2	Quintile 4	4
Quintile 5 (highest)	1	Quintile 5 (highest)	5

The scoring matrix as well as the proposed criteria for each application are available for review. They may be found on the corresponding pages in this memo listed below:

Section	Page #
Scoring Matrix – All Applications	5
Road and Bridge Infrastructure	6
Safety	18
Traffic Flow	30
Freight and Economic Development	48
Active Transportation	64
Transit	73











Next Steps

East-West Gateway will convene the Illinois and Missouri Transportation Planning Committee on October 5 to get feedback on the scoring criteria. Prior to this meeting, partner agencies may submit additional feedback on the proposed scoring criteria by e-mail, telephone, or scheduled meetings.

The application schedule for the next STP-S funding cycle will be released at the October TPC. The next cycle will be hybrid of last cycle. Projects will be scored based on the evaluation process used during the last cycle, however, additional questions will be included in the applications that will address the proposed new criteria. Once projects are scored and TPC recommendations are made, staff will conduct a ‘test’ evaluation of the projects submitted for funding using the proposed new criteria. This will enable staff to determine if the evaluation is working as intended and allow staff to finalize the usage and cost measures.



Performance Management Framework

Federal Goals	MoDOT Goals	IDOT Goals	EWG's 10 Guiding Principles		System Measures	Project Scoring Measures	
Infrastructure Condition	Taking care of the system	Preserve and Manage the Existing System		Preserve and Maintain the Existing System	Ensure the transportation system remains in a state of good repair.	<ul style="list-style-type: none"> • Bridge Condition* • Pavement Condition* 	Project Addresses Preservation Deficiency
	Connections & Choices	Promote Funding for the Public Component of the System		Support Public Transportation	Invest in public transportation to spur economic development, protect the environment and improve quality of life.	<ul style="list-style-type: none"> • Transit Ridership** • Transit Access** 	Project Strengthens Transit System
	Connections & Choices			Support Neighborhoods & Communities	Connect communities to opportunities and resources across the region.	<ul style="list-style-type: none"> • Housing + Transportation Cost** 	Project Increases Access to Regional Resources
	Connections & Choices			Foster a Vibrant Downtown & Central Core	Improve access to and mobility within the central core by all modes to increase the attractiveness of St. Louis and strengthen the regional economy.	<ul style="list-style-type: none"> • Population and Employment in the Central Core 	Project Serves Downtown and/or the Central Core
	Connections & Choices	Provide a System that Offers a High Degree of Multi-Modal Connectivity, Mobility and Accessibility		Provide More Transportation Choices	Create viable alternatives to automobile travel by providing bicycle and pedestrian facilities.	<ul style="list-style-type: none"> • Mode Split** • Vehicle miles traveled per capita** 	Project Includes Bike/ Pedestrian Element
Safety	Safety	Improve Transportation Safety		Promote Safety and Security	Provide a safe and secure transportation system for all users.	<ul style="list-style-type: none"> • Number/Rate of Fatalities* • Number/Rate of Serious Injuries* 	Project Improves User Safety
Congestion Reduction & System Reliability	Economic Development	Address Congestion and Maximize Efficiency and Effectiveness through Operations		Support a Diverse Economy with a Reliable System	Reduce congestion and improve travel time reliability to support the diverse economic sectors of the region.	<ul style="list-style-type: none"> • Annual Hours of Delay* • Planning Time Index* 	Project Improves System Reliability
	Economic Development	Target Investments to Support Business and Employment Growth		Support Quality Job Development	Support the growth of wealth producing jobs that allow residents to save and return money to the economy.	<ul style="list-style-type: none"> • Access to Quality Jobs 	Project Increases Access to Quality Job Clusters
Freight Movement & Economic Vitality	Economic Development	Provide for Efficient Freight Movement		Strengthen Intermodal Connections	Support freight movement and connections that are critical to the efficient flow of both people and goods.	<ul style="list-style-type: none"> • Annual Hours of Truck Delay* • Truck Congestion Cost* • Freight Tonnage 	Project Supports Regional Freight Assets
Environmental Sustainability		Ensure a Compatible Interface of the System with Environmental, Social, Energy and Land Use Considerations		Protect Air Quality and Environmental Assets	Encourage investments that recognize the linkages between the social, economic, and natural fabric of the region.	<ul style="list-style-type: none"> • Criteria Pollutant Emissions* • Conservation & Environmental Significance Score 	Project Improves Air Quality/Protects the Natural Environment

*Anticipated Federal Requirement

**OneSTL Performance Indicator

UPDATED POINT ALLOCATION - BASED ON STAKEHOLDER FEEDBACK *

Connected2045 Principle	Road and Bridge Infrastructure	Traffic Flow	Safety	Active Transportation	Transit	Freight / Economic Development
<i>Preserve/Maintain</i>	60	5	5	5	-	5
<i>Support Public Transit</i>	5	5	5	5	50	5
<i>Support Neighborhoods/Communities</i>	4	5	5	15	15	5
<i>Foster a Vibrant Downtown</i>	-	5	-	10	-	-
<i>Provide More Transportation Choices</i>	10	5	10	27	10	5
<i>Safety and Security</i>	8	10	70	35	5	5
<i>Diverse Economy/Reliable Transportation System</i>	2	50	-	-	5	10
<i>Support Quality Job Development</i>	4	5	-	-	5	10
<i>Strengthen Intermodal Connections</i>	5	5	5	-	-	50
<i>Protect Air Quality/Environmental</i>	2	5	-	3	10	5
Total	100	100	100	100	100	100

Legend:

Primary Purpose

Road and Bridge Infrastructure Scoring Criteria

<i>Preserve and Maintain: 60</i>
<i>Support Public Transit: 5</i>
<i>Support Neighborhoods/Communities: 4</i>
<i>Support a Diverse Economy: 2</i>
<i>Provide More Transportation Choices: 10</i>
<i>Safety: 8</i>
<i>Support Quality Job Development: 4</i>
<i>Strengthen Intermodal Connections: 5</i>
<i>Protect Air Quality/Environmental: 2</i>
<i>Total: 100</i>

Preserve and Maintain the Existing System (60 total points)

In order to align the development of the Transportation Improvement Program (TIP) with the Council's long-range transportation plan, *Connected2045*, preserving and maintaining the existing transportation system is one of the region's top priorities. By prioritizing preservation of the system, we can reduce the costs of deferred maintenance, improve safety, and foster regional economic growth. While the overarching goal is to ensure the transportation system remains in a good state of repair by managing and maintaining current roadway, bridge, transit, and intermodal assets, sponsors should incorporate other guiding principles from the long-range transportation plan as well. Ideal projects are those that support public transit, promote safety, provide more transportation choices, reduce congestion, or strengthen intermodal connections, in addition to preserving the existing system.

In this section, projects will be assessed in terms of how they contribute to the preservation of existing infrastructure assets. Only projects that propose to replace, rehabilitate, or repair a facility can receive points. Projects that propose to add new through lanes should complete the Traffic Flow application.

TRACK ONE: ROAD PROJECTS (60 points):

Rehabilitation/Reconstruction:

Pavement condition will be assessed using the Pavement Surface Evaluation and Rating (PASER)¹ Guide, which is a visual rating system. A PASER rating number must be included on the applicable page number of the application and documentation must be provided to show how this rating was determined. PASER ratings range from 1-10, with 1 being 'very poor' condition and 10 being 'excellent' condition. For accurate ratings, the pavement must be rated at locations at a uniform distance. This distance must be no more than ¼-mile for urban areas or ½-mile for rural areas. The distance between rating locations must be included in final calculations of the average rating. Photographs of the pavement at the rating locations are required, as well as a map showing the rating locations. Examples of the types of improvements typically used on roadways with different pavement ratings, as well as their associated scores, are listed below. This is meant to be illustrative, and not an exhaustive list of improvements eligible for funding.

¹ Information on PASER available at: <http://www.apa-mi.org/docs/Asphalt-PASERManual.pdf>.

- 55 points** PASER 2-5 (Poor,Fair) – Includes project elements such as resurfacing, structural improvements such as extensive slab replacement, base repair, or joint rehabilitation. Further deterioration or more severe damage will require more intensive and expensive treatments.
- 45 points** PASER 6-7 (Good) – Includes project elements that are primarily focused on preservative treatments, non-structural surface repairs, routine sealing, and minor patching of pavement to prevent further deterioration.
- 35 points** PASER 1 (Very Poor) – Includes full reconstruction of the facility, regardless of pavement condition. Reconstruction may be due to deterioration or deficient design. Facilities in this condition are assigned a lower priority, to encourage preventive maintenance prior to this level of deterioration.
- 25 points** PASER 8 (Very Good) – Includes standard roadway maintenance.
- Zero points** PASER 9-10 (Excellent) – Includes pavement in new or like-new condition with no maintenance required.

AND

Pavement Management Plan (PMP):

Timely application of a pavement treatment can increase the life of the roadway. An effective pavement management system is a systematic process that provides information for use in implementing cost-effective pavement reconstruction, rehabilitation, and preventative maintenance programs. The PMP involves the evaluation of pavements on a regular basis which allows jurisdictions to accommodate current and forecasted traffic in a safe, durable, and cost-effective manner.

- 5 points** There is a pavement management plan that indicates previous treatments and future maintenance plans for road.
- Zero points** There is no pavement management plan.

*Documentation required – Attach relevant documentation, including but not limited to: calculations, photos, and/or maps. Points will be assigned only if the project will improve the deficient condition and documentation of the condition is provided with the project application. The PMP is required to show past and future maintenance of the roadway. Points will be assigned for a PMP if it shows that treatment in the year federal funds are available is consistent with the plan.

TRACK TWO: BRIDGE PROJECTS (60 points):

Bridge Replacement or Rehabilitation:

Bridge conditions will be assessed using the bridge sufficiency rating system approved by FHWA. A bridge sufficiency rating number must be listed on the applicable page number of the application and documentation of this rating must be provided. Bridge sufficiency ratings range

from 0-100, with 0 being completely deficient and 100 being a new or entirely sufficient bridge. State DOTs calculate the ratings based on a number of factors including width, vertical clearance, load capacity, essentiality for public use, and structural safety. A copy of the state's bridge inspection report is required. If a bridge inspection report is not available, please contact East-West Gateway staff for assistance.

60 points Bridge sufficiency rating 0-39.9 (very poor)

50 points Bridge sufficiency rating 40-49.9 (poor)

40 points Bridge sufficiency rating 50-59.9 (fair)

30 points Bridge sufficiency rating 60-79.9 (good)

OR

Preventive maintenance activities:

Preventative maintenance activities may be eligible for funding if the sponsor has in place a systematic process, such as a Bridge Management System, which demonstrates the cost effectiveness of extending the service life of their bridges.

40 points Project sponsor proposes systemic preventative maintenance plan.

*Documentation required – Attach the state bridge inspection report identifying the sufficiency rating. Points will be assigned only if the project will improve the deficient condition (structural or functional) and documentation of the condition is provided with the project application. For maintenance activities, attach systemic maintenance plan. Preventative maintenance project processes must previously have been reviewed and approved by FHWA (or review is underway).

Support Public Transportation (5 total points)

Public transit provides a variety of benefits, including accessible transportation options for all ages and abilities. Under this criterion, five (5) points are awarded if the project intersects or is located within a transit route (including Amtrak and intercity bus service) AND includes physical improvements to the transit system. Physical improvements to bus stops include: sidewalks to transit facilities, removing obstructions blocking access to transit facilities, landing pads, appropriate street crossings near transit facilities, lighting, bus shelters, benches, etc. If the project intersects or is located within a transit route (including Amtrak and intercity bus service), and does not include physical improvements to the transit system, two (2) points are assigned. If the project limits is not on a transit route, zero points are assigned. East-West Gateway staff will use Bi-State Development, Madison County Transit, and St. Clair County Transit route data and GIS analysis to determine if the project intersects or is located on a transit route.

5 points Project intersects or located within a transit route **AND** includes physical improvements to transit system.

2 points Project intersects or located within a transit route.

Zero points Project is not on a transit route.

Support Neighborhoods/Communities (4 total points)

ENVIRONMENTAL JUSTICE (4 points):

This criterion is included to account for projects that are located in Environmental Justice (EJ) areas. This is to ensure that populations that have traditionally been underserved have safe access to community resources and meaningful choices in transportation. East-West Gateway will use minority and low-income household Census data and GIS analysis to determine if the project is located in an EJ area. If the project falls in an EJ area, four (4) points are awarded. If the project is not located in an EJ area, zero points are assigned. A map of the EJ areas is provided below and in Appendix XX.

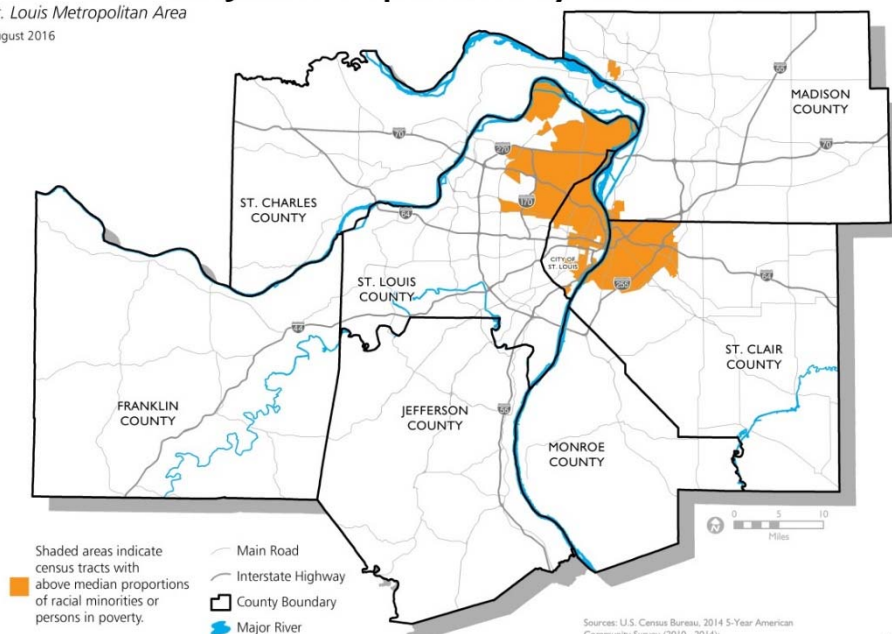
Projects that are located within EJ areas will not earn points if they impose a burden on the population of the area. Burdens may include disruption of community cohesion (i.e., access to schools, parks, medical facilities, and religious institutions), adverse employment effects, decline in tax base or property values, displacements, increased noise and/or emissions, diminished aesthetics, and disruption to businesses, parking, or access to transit.

4 points Project falls in, or partially in, an EJ tract **AND** does not impose burden.

Zero points Project is not located in an EJ tract.

Environmental Justice Populations by Census Tract

St. Louis Metropolitan Area
August 2016



Provide More Transportation Choices (10 total points)

Per the 2010 USDOT Policy Statement: *Bicycle and Pedestrian Accommodation Regulations and Recommendations*, every transportation agency has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. The USDOT encourages transportation agencies to go beyond the minimum requirements, and proactively provide convenient, safe, and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate. Per the 2013 FHWA Memorandum: *Bicycle and Pedestrian Design Flexibility* and the *Questions & Answers about Design Flexibility for Pedestrian and Bicycle Facilities*, FHWA recommends a flexible approach to pedestrian and bicycle facility design. The AASHTO *Guide for the Planning, Design, and Operation of Pedestrian Facilities* and the AASHTO *Guide for the Development of Bicycle Facilities* are the primary national resources for planning, designing, and operating pedestrian and bicycle facilities. The NACTO *Urban Street Design Guide* and the ITE *Designing Urban Walkable Thoroughfares: A Context Sensitive Approach* guide builds upon the flexibilities provided in the AASHTO guides and can be used when designing safe and convenient pedestrian and bicycle facilities. The NACTO guide does not supersede compliance with the ADA Standards for Accessible Design, PROWAG, and MUTCD.

For bicycle or pedestrian projects to receive full points, improvements must be context sensitive and appropriate, go beyond minimum standards, and include features that are both safe and comfortable. If the project implements new or improved bicycle or pedestrian facilities that include low-stress features, ten (10) points will be awarded. If the project implements medium-stress features, six (6) points will be assigned. If the project implements medium-high stress features, four (4) points will be assigned. If a high-stress facility type is proposed, zero points will be assigned. If bicycle or pedestrian facilities are not included in the project, project sponsors must provide an explanation as to why they are not included. Failure to include bicycle and/or pedestrian facilities may result in the project not being funded.

- | | |
|--------------------|---------------------------------------|
| 10 points | Low-stress facility proposed. |
| 6 points | Medium-stress facility proposed. |
| 4 points | Medium-high stress facility proposed. |
| Zero points | High-stress facility proposed. |

Examples of each stress level are provided below:

Level of Stress	Bicycle Examples	Pedestrian Examples
Low-Stress 10 points	Physically separated bikeways, including shared use paths, cycle tracks, and protected bike lanes; bike lanes 6' wide or more; paved shoulders on rural roadways; low volume, mixed-flow traffic at 25 mph or less; and intersections easy to approach and cross.	Sidewalks on one side/both sides of the road (maximum FHWA recommendation met); sidewalks are the appropriate width (i.e., 5' in residential areas and 8' in commercial urban areas); crossing treatments are addressed (i.e., crosswalks/pedestrian signals); appropriate buffers between pedestrians and motor traffic (i.e., parked cars/landscaping/protected bike lanes); traffic calming where warranted (i.e., road diets, lane diets, pedestrian refuge islands, right corner islands); sufficient and appropriate pedestrian lighting; and large sidewalk obstructions are absent in pedestrian through zone (i.e., lighting, utility poles).
Medium-Stress 6 points	Conventional bike lanes next to 30 mph auto traffic.	Sidewalks on one side/both sides of the road (per FHWA recommendation, only the "required" level is met when a "preferred" level is proposed).
Medium-High Stress 4 points	Conventional bike lanes next to 35+ mph auto traffic; and mixed flow traffic at 30 mph.	Sidewalks on one side/both sides of the road (per FHWA recommendation, sidewalks are on one side when FHWA lists two sides as "required").
High-Stress Zero points	Conventional bike lanes next to traffic speeds 40+ mph; riding in mixed traffic at 35+ mph; "Share the Road" or "Bikes May Use Full Lane" signage where not warranted; conflicts with intersections and driveways along a shared use path; and not addressing barriers in the network.	Long blocks with no mid-block crossings; long pedestrian crossing distances; lacks warranted crossing treatments; pedestrian pushbuttons do not exist at controlled intersections; and lighting/utility obstructions in pedestrian path.

** For applicants proposing bicycle and pedestrian projects, an average of those two scores will be taken.*

** All projects are required to be ADA compliant.*

Promote Safety (8 total points)

As identified in *Connected2045*, East-West Gateway is focusing on lowering the number of fatalities and serious injuries caused by vehicle crashes. To meet this goal, projects should be addressing safety issues in high crash areas or should be using the systemic approach of fixing safety issues across the system where crashes are likely to happen.

Project sponsors can receive points if the project addresses a location with documented crashes as well as locations with undocumented crashes. If the project location has documented crashes, the project crash rate and fatality and serious injury rate will need to be calculated. A project with a higher crash rate and fatality and serious injury rate than the MO/IL regional rate will receive the most points in this category. If the project location does not have a documented problem but is listed in a plan as an area suitable for preventive safety countermeasures, it will be eligible for the minimum points in the safety section. This puts the priority on projects with a documented crash history to help reduce the region's crash rate. Missouri regional crash rate and an Illinois regional crash rate will be developed; sponsors will use the same formula to calculate the project crash rate.

TRACK ONE: PROJECTS WITH A DOCUMENTED CRASH PROBLEM (8 points):

- 8 points** Project crash rate **AND** the fatality and serious injury rate is equal to or greater than MO/IL regional rates and includes countermeasures
OR
Project intersection crash rate **AND** project fatality and serious injury intersection crash rate is equal to or greater than the IL regional intersection crash rates and includes countermeasures.
- 6 points** Either the project crash rate **OR** the fatality serious injury rate is equal to or greater than MO/IL regional rates and includes countermeasures
OR
Project intersection crash rate **OR** project fatality and serious injury intersection crash rate is equal to or greater than the IL regional intersection crash rates and includes countermeasures.
- 4 points** Project crash rate **AND** the fatality and serious injury rate is less than MO/IL regional crash rate and includes countermeasures
OR
Project intersection crash rate **AND** project fatality and serious injury intersection crash rate is less than the IL regional intersection crash rates and includes countermeasures.
- Zero points** Project does not address safety.

Conducting the crash rate:

The project crash rate will use the most recent five consecutive calendar years in which data is available. East-West Gateway used MoDOT and IDOT's most recent data to compile the regional crash rate for both Missouri and Illinois. To make sure the project crash rates are being fairly scored against the regional rates, sponsors must use crash data from 2009-2013.

Please note: Sponsors should use the number of fatal and serious injuries crashes and not the total number of fatalities and serious injuries.

To find the project crash rate, use the formula below:

$$\frac{(\text{Number of total crashes}) \times 100,000,000 \text{ vehicle miles traveled}}{(\text{Project Length}) \times (\text{Project Average Daily Traffic}) \times (\text{Number of Crash Years}) \times 365}$$

OR if the project is at an intersection, use the formula below:

$$\frac{(\text{Number of Accidents}) \times 100,000,000 \text{ million entering vehicles}}{(\text{Number of crash years}) \times (\text{Entering AADT}) \times 365 \text{ days/year}}$$

Conducting the fatality and serious injury rate:

The project fatality and serious injury rate will use the most recent five consecutive calendar years in which data is available. East-West Gateway used MoDOT and IDOT's most recent data to compile the fatality and serious injury crash rate for both Missouri and Illinois. To make sure the project fatality and serious injury rates are being fairly scored against the regional fatality and serious injury rates, sponsors must use crash data from 2009-2013. Please note: Sponsor should use the number of fatal and serious injuries crashes NOT the total number of fatalities and serious injuries.

To find the project fatality and serious injury rate, use the formula below.

$$\frac{(\text{Number of fatal and serious injury crashes}) \times 100,000,000 \text{ vehicle miles traveled}}{(\text{Project Length}) \times (\text{Project Average Daily Traffic}) \times (\text{Number of Crash Years}) \times 365}$$

OR if the project is at an intersection, use the formula below:

$$\frac{(\text{Number of fatal and serious injury crashes}) \times 100,000,000 \text{ million entering vehicles}}{(\text{Number of crash years}) \times (\text{Entering AADT}) \times 365 \text{ days/year}}$$

TRACK TWO: PROJECTS WITHOUT A DOCUMENTED CRASH PROBLEM (4 points):

4 points Project does not have crashes **AND** includes preventative countermeasures to address potential crashes.

Zero points Project does not address safety.

To receive points in this category, sponsors must include a safety countermeasure. Sponsors must include the countermeasure's Crash Modification Factor (CMF) detailed sheet* to receive any points in this category. Sponsors must also provide the rates or identify plans as listed below.

Preventative countermeasures:

East-West Gateway understands the importance of being proactive when it comes to transportation safety. A Strategic Highway Safety Plan was created for each county in East-West

Gateway's region. These plans look at areas with crash history as well as list countermeasures that can be implemented across the system. Sponsors can also refer to their respective state's Strategic Highway Safety Plan² to find safety countermeasures to apply systemically across their system.

Sponsors will need to provide a safety study, show the countermeasure is listed in a plan, or have a reason behind using the safety countermeasure for this specific project. If a project is using proven safety countermeasures and is listed in a plan or a study has been completed for the project, it will get the full four (4) points.

* To find the CMF go to <http://www.cmfclearinghouse.org>. Sponsors will need to enter in the safety countermeasure and select the CMF that best describes the project. Once the CMF is selected, the sponsor will need to scroll to the bottom and select EXPORT PDF. This PDF must be included with the application. Another resource sponsors may use to find the CMF is Table 5.4 of the Missouri Department of Transportation S-HAL³: Safety Handbook for Locals produced by the University of Missouri. This can be used for both Missouri and Illinois sponsors. Table 5.4 consists of commonly used countermeasures organized alphabetically by general category of the countermeasure. This table does NOT include all countermeasures but may be an easier way to search for possible countermeasures for the project. In the column titled CMF Clearinghouse ID, sponsors will find the ID number for the CMF. Sponsors should type this ID number into the Clearinghouse website to pull up the detailed information sheet. This is the sheet that must be printed and submitted with the application.

Support a Diverse Economy with a Reliable Transportation System (2 total points)

Intelligent Transportation Systems (ITS) components can be used to improve traffic flow and the travel experience for commuters and freight. Projects that include new or improved ITS components or elements will receive two (2) points. Projects that do not include ITS components or elements will receive zero (0) points.

2 points Project includes new or improved ITS components or elements.

Zero points Project does not include new or improved ITS components or elements.

² IDOT's Strategic Highway Safety Plan and Highway Safety Plan: <http://www.idot.illinois.gov/transportation-system/transportation-management/planning/SHSP>

MoDOT's Strategic Highway Safety Plan and Highway Safety Plan: <http://www.modot.org/safety/>

County strategic highway safety plan: **Insert link here**

³ S-HAL: http://epg.modot.org/files/3/35/907.5_SHAL.pdf

Support Quality Job Development (4 total points)

The *OnTheMap* tool is derived from census data and will be used to assess where workers are employed in the region. Employment density or jobs per census block will be used as a measure in determining how important improvements to transportation facilities are in the surrounding area. Each project will be assessed points based on its county location and number of jobs per sq. mile. Up to four (4) points will be awarded to projects based on the distribution in the *OnTheMap* tool at a county level.

4 points	High Jobs/Sq. Mile
3 points	Medium-High Jobs/Sq. Mile
2 points	Medium Jobs/Sq. Mile
1 point	Medium-Low Jobs/Sq. Mile
Zero points	Low Jobs/Sq. Mile

Strengthen Intermodal Connections (5 total points)

The St. Louis region is well positioned to capture some of the expected growth in nationwide freight movement for all modes, given the region's central location, rivers, low traffic congestion and lack of tolling. Future growth will depend on coordinating public and private freight decision making and investments, ensuring reliable truck travel times, strengthening multi-modal connections to the 23 key industrial site areas, and ensuring the region's workforce can access freight employment opportunities. A map of the 23 key industrial site areas as well as the Primary Highway Freight System is provided in below and in Appendix XX.

- 5 points** Project meets one of the following four criteria:
- Located within one of 23 key industrial site areas⁴
 - Connects to a Critical Urban Freight Corridor (CUFC)⁵
 - Connects to a Critical Rural Freight Corridor (CRFC)⁶
 - Connects to the Primary Highway Freight System (PHFS)⁷
- AND**
- Connects to an intermodal freight facility, serves a major freight generator, logistic center, manufacturing and warehouse industrial land, or navigable waterway or Port District⁸.

⁴ **Industrial Site Areas** identified in the 2014 St. Louis Regional Freight Study: <http://www.ewgateway.org/freight/freight.htm>

⁵ **Critical Urban Freight Corridor:** public roads in urbanized areas which provide access and connection to the PHFS and the Interstate with other ports, public transportation facilities, or other intermodal transportation facilities.

⁶ **Critical Rural Freight Corridor:** public roads not in an urbanized area which provide access and connection to the PHFS and the Interstate with other important ports, public transportation facilities, or other intermodal freight facilities.

⁷ **Primary Highway Freight System:** <http://ops.fhwa.dot.gov/freight/infrastructure/nfn/index.htm>

⁸ Intermodal Connectors for Missouri:

http://www.fhwa.dot.gov/planning/national_highway_system/intermodal_connectors/missouri.cfm

3 points Project is located within one of 23 key industrial site areas, connects to a CUFC, connects to a CRFC, connects to the PHFS, **OR** project connects to an intermodal freight facility, serves a major freight generator, logistic center, manufacturing and warehouse industrial land, or navigable waterway or Port District.

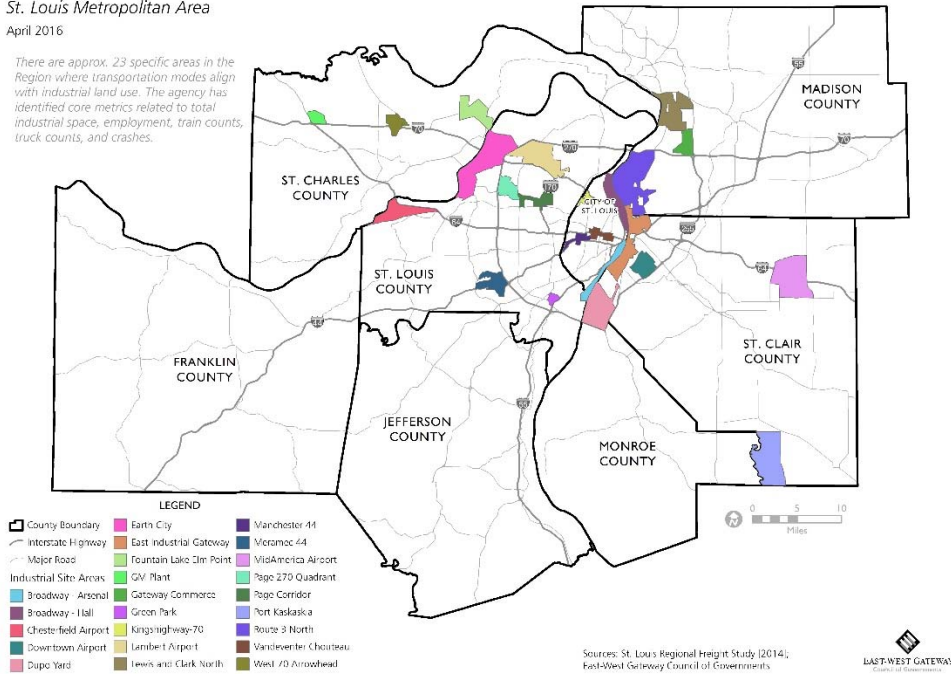
Zero points Project does not strengthen intermodal connections.

Please note: CUFC's and CRFC's are currently under development. States and in certain cases, Metropolitan Planning Organizations (MPOs), are responsible for designating public roads for the CRFCs and CUFCs in accordance with section 1116 of the FAST Act. State designation of the CRFCs is limited to a maximum of 150 miles of highway or 20 percent of the PHFS mileage in the State, whichever is greater. State and MPO designation of the CUFC is limited to a maximum of 75 miles of highway or 10 percent of the PHFS mileage in the State, whichever is greater. Guidance in accordance with the FAST Act section 1116 will be developed to provide information on the identification, designation, and certification of these corridors.

Industrial Site Areas

St. Louis Metropolitan Area
April 2016

There are approx. 23 specific areas in the Region where transportation modes align with industrial land use. The agency has identified core metrics related to total industrial space, employment, train counts, truck counts, and crashes.



Intermodal Connectors for Illinois:

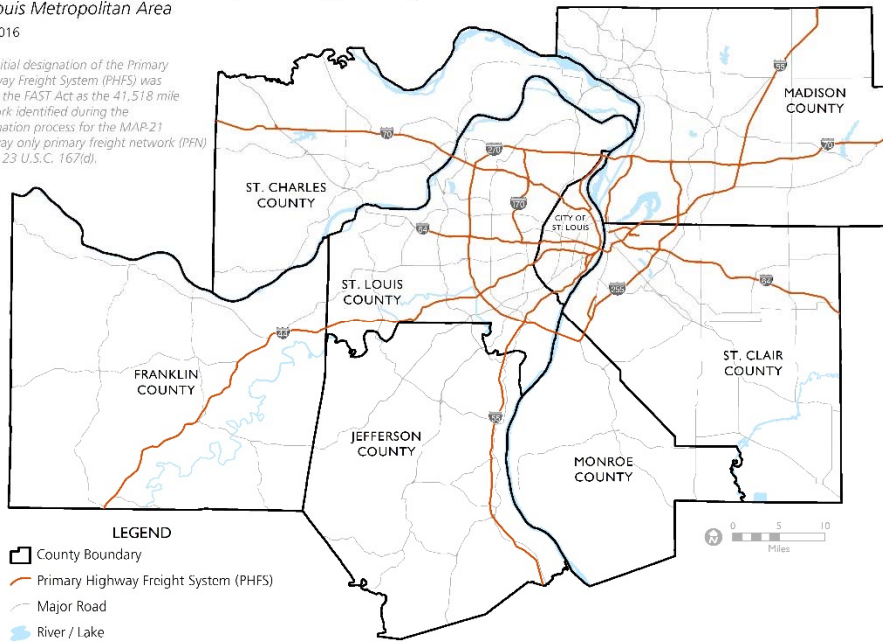
http://www.fhwa.dot.gov/planning/national_highway_system/intermodal_connectors/illinois.cfm

Primary Highway Freight System

St. Louis Metropolitan Area

April 2016

The initial designation of the Primary Highway Freight System (PHFS) was set by the FAST Act as the 41,518 mile network identified during the designation process for the MAP-21 highway only primary freight network (PFN) under 23 U.S.C. 167(d).



Sources: US Federal Highway Administration; East-West Gateway Council of Governments



Air Quality/Environment (2 total points)

Green infrastructure is a design approach to managing stormwater, the urban heat island effect, public health, and air quality. Sustainable stormwater management treats and slows runoff from impervious roadways, sidewalks, and building surfaces. Examples of green infrastructure include bioswales, rain gardens, pervious strips, pervious pavement, and green bulb-outs. If the proposed project includes green infrastructure, two (2) points are awarded. If the project does not provide any green infrastructure, zero points are assigned.

2 points Project includes green infrastructure elements.

Zero points Project does not include green infrastructure.

Safety Scoring Criteria

<i>Preserve and Maintain: 5</i>
<i>Support Public Transit: 5</i>
<i>Support Neighborhoods and Communities: 5</i>
<i>Provide More Transportation Choices: 10</i>
<i>Safety: 70</i>
<i>Strengthen Intermodal Connections: 5</i>
Total: 100

Preserve and Maintain the Existing System (5 total points)

In order to align the development of the Transportation Improvement Program (TIP) with *Connected2045*, preserving and maintaining the existing transportation system is one of the region's top priorities. By prioritizing preservation of the system, we can reduce the costs of deferred maintenance, improve safety, and foster regional economic growth. While the overarching goal is to ensure the transportation system remains in a good state of repair by managing and maintaining current roadway, bridge, transit, and intermodal assets, sponsors should incorporate other guiding principles from the long-range plan as well. Ideal projects are those that support public transit, promote safety, provide more transportation choices, reduce congestion, or strengthen intermodal connections, in addition to preserving the existing system.

In this section, projects will be assessed in terms of how they contribute to the preservation of existing infrastructure assets. Only projects that propose to replace, rehabilitate, or repair a facility can receive points – projects that propose to construct an entirely new facility will receive zero points.

Road projects:

Pavement condition will be assessed using the Pavement Surface Evaluation and Rating (PASER)¹ Guide, which is a visual rating system. A PASER rating number must be included on the applicable page number of the application and documentation must be provided to show how this rating was determined. PASER ratings range from 1-10, with 1 being 'very poor' condition and 10 being 'excellent' condition. For accurate ratings, the pavement must be rated at locations at a uniform distance. This distance must be no more than ¼-mile for urban areas or ½-mile for rural areas. The distance between rating locations must be included in final calculations of the average rating. Photographs of the pavement at the rating locations are required, as well as a map showing the rating locations. Examples of the types of improvements typically used on roadways with different pavement ratings, as well as their associated scores, are listed below. This is meant to be illustrative, and not an exhaustive list of improvements eligible for funding.

5 points	PASER 1-2 (very poor) – Including, but not limited to, full reconstruction of the facility, regardless of pavement condition. Reconstruction may be due to deterioration or deficient design.
-----------------	---

¹ Information on PASER available at: <http://www.apa-mi.org/docs/Asphalt-PASERManual.pdf>.

- 4 points** PASER 3-4 (poor) – Including, but not limited to, structural improvements such as extensive slab replacement, joint rehabilitation, or full-depth pavement repairs
- 3 points** PASER 5-6 (fair) – Including, but not limited to, project elements that are primarily focused on preservative treatments and non-structural surface repairs.
- 2 points** PASER 7 (good) – Including, but not limited to, routine sealing and minor patching of pavement to prevent further deterioration.
- 1 point** PASER 8 (very good) – Including, but not limited to, routine sealing and minor patching of pavement to prevent further deterioration.
- Zero points** PASER 9-10 (excellent) – Including, but not limited to, pavement in new or like-new condition with no maintenance required.

*Documentation required – Attach relevant documentation, including but not limited to: calculations, photos, and/or maps. Points will be assigned only if the project will improve the deficient condition and documentation of the condition is provided with the project application.

OR

Bridge projects:

Bridge conditions will be assessed using the bridge sufficiency rating system, approved by FHWA. A bridge sufficiency rating number must be listed on page # of the application and documentation of this rating must be provided. Bridge sufficiency ratings range from 0-100, with 0 being completely deficient and 100 being a new or entirely sufficient bridge. State DOTs calculate the ratings based on a number of factors including width, vertical clearance, load capacity, essentiality for public use, and structural safety. A copy of the state’s bridge inspection report is required. If a bridge inspection report is not available, please contact East-West Gateway staff for assistance.

- 5 points** Bridge sufficiency rating 0-39.9 (very poor)
- 4 points** Bridge sufficiency rating 40-49.9 (poor)
- 3 points** Bridge sufficiency rating 50-59.9 (fair)
- 2 points** Bridge sufficiency rating 60-79.9 (good)

*Documentation required – Attach the state bridge inspection report identifying the sufficiency rating. Points will be assigned only if the project will improve deficient condition (structural or functional) and documentation of condition is provided with the project application. For maintenance activities, attach systemic maintenance plan. Preventative maintenance project processes must previously have been reviewed and approved by FHWA (or review is underway).

AND/OR

ITS components:

Up to five (5) points can be earned if the project proposes to preserve ITS components such as signals or traffic sensors. ITS components must be within the project limits and not related to traffic flow performance. *Projects that preserve road or bridge infrastructure **AND** incorporate ITS components will receive the average of the two scores. For example: 5 points for roadway resurfacing + 3 points for signal upgrades = 4 points overall for preservation.*

5 points ITS components are inoperable and need full replacement.

3 points ITS components require repairs, improvements, or upgrades only.

AND/OR

Safety Components

Up to five (5) points can be earned if the project proposes to preserve safety components such as signage or guardrails. Sponsors must demonstrate the need to replace such equipment and all equipment must be Manual on Uniform Traffic Control Devices (MUTCD) compliant. *Projects that preserve road or bridge infrastructure **AND** have safety components will receive the average of the two scores. For example: 5 points for roadway resurfacing + 3 points for safety component = 4 points overall for preservation.*

5 points Safety components are inoperable and need full replacement.

3 points Safety components require repairs, improvements, or upgrades only.

Support Public Transportation (5 total points)

Public transit provides a variety of benefits, including accessible transportation options for all ages and abilities. Under this criterion, five (5) points are awarded if the project intersects or is located within a transit route (including Amtrak and intercity bus service) **AND** includes physical improvements to the transit system. Physical improvements to bus stop include: sidewalks to transit facilities, removing obstructions blocking access to transit facilities, landing pads, appropriate street crossings near transit facilities, lighting, bus shelters, benches, etc. If the project intersects or is located within a transit route (including Amtrak and intercity bus service), and does not include physical improvements to the transit system, two (2) points are assigned. If the project limits is not on a transit route, zero points are assigned. East-West Gateway staff will use Bi-State Development, Madison County Transit, and St. Clair County Transit route data and GIS analysis to determine if the project intersects or is located on a transit route.

5 points Project intersects or located within a transit route **AND** includes physical improvements to transit system.

2 points Project intersects or located within a transit route.

Zero points Project is not on a transit route.

Support Neighborhoods/Communities (5 points)

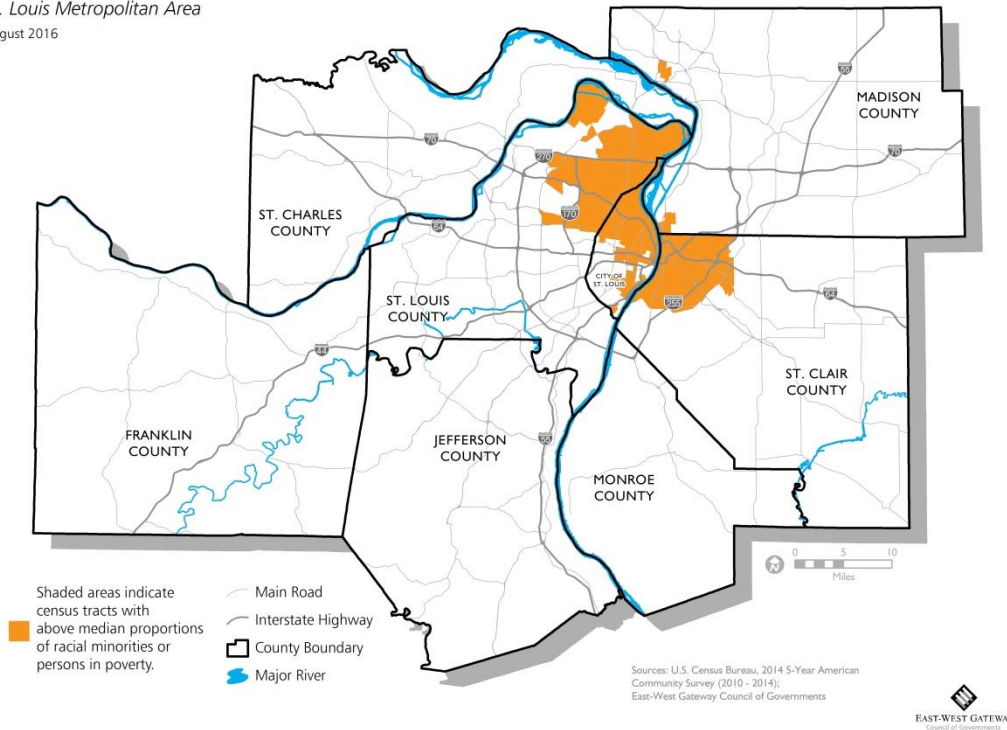
This criterion is included to account for projects that are located in Environmental Justice (EJ) areas. This is to ensure that populations that have traditionally been underserved have safe access to community resources and meaningful choices in transportation. East-West Gateway will use minority and low-income household Census data and GIS analysis to determine if the project is located in an EJ area. If the project falls in an EJ area, five (5) points are awarded. If the project is not located in an EJ area, zero points are assigned. A map of the EJ areas is provided below and in Appendix XX.

Furthermore, projects located within environmental justice areas will not earn points if they impose a burden on the population of the area. Burdens may include disruption of community cohesion (i.e., access to schools, parks, medical facilities, and religious institutions), adverse employment effects, decline in tax base or property values, displacements, increased noise and/or emissions, diminished aesthetics, and disruption to businesses, parking, or access to transit.

- 5 points** Project falls in, or partially in, an EJ tract **AND** does not impose burden.
- Zero points** Project is not located in an EJ tract.

Environmental Justice Populations by Census Tract

St. Louis Metropolitan Area
August 2016



Provide More Transportation Choices (10 total points)

Per the 2010 USDOT Policy Statement: *Bicycle and Pedestrian Accommodation Regulations and Recommendations*, every transportation agency has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. The USDOT encourages transportation agencies to go beyond the minimum requirements, and proactively provide convenient, safe, and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate. Per the 2013 FHWA Memorandum: *Bicycle and Pedestrian Design Flexibility* and the *Questions & Answers about Design Flexibility for Pedestrian and Bicycle Facilities*, FHWA recommends a flexible approach to pedestrian and bicycle facility design. The AASHTO *Guide for the Planning, Design, and Operation of Pedestrian Facilities* and the AASHTO *Guide for the Development of Bicycle Facilities* are the primary national resources for planning, designing, and operating pedestrian and bicycle facilities. The NACTO *Urban Street Design Guide* and the ITE *Designing Urban Walkable Thoroughfares: A Context Sensitive Approach* guide builds upon the flexibilities provided in the AASHTO guides and can be used when designing safe and convenient pedestrian and bicycle facilities. The NACTO guide does not supersede compliance with the ADA Standards for Accessible Design, PROWAG, and MUTCD.

For bicycle or pedestrian projects to receive full points, improvements must be context sensitive and appropriate, go beyond minimum standards, and include features that are both safe and comfortable. If the project implements new or improved bicycle or pedestrian facilities that include low-stress features, ten (10) points will be awarded. If the project implements medium-stress features, six (6) points will be assigned. If the project implements medium-high stress features, four (4) points will be assigned. If a high-stress facility type is proposed, zero points will be assigned. If bicycle or pedestrian facilities are not included in the project, project sponsors must provide an explanation as to why they are not included. Failure to include bicycle and/or pedestrian facilities may result in the project not being funded.

- 10 points** Low-stress facility proposed.
- 6 points** Medium-stress facility proposed.
- 4 points** Medium-high stress facility proposed.
- Zero points** High-stress facility proposed.

Examples of each stress level are provided below:

<i>Level of Stress</i>	Bicycle Examples	Pedestrian Examples
Low-Stress 10 points	Physically separated bikeways, including shared use paths, cycle tracks, and protected bike lanes; bike lanes 6' wide or more; paved shoulders on rural roadways; low volume, mixed-flow traffic at 25 mph or less; and intersections easy to approach and cross.	Sidewalks on one side/both sides of the road (maximum FHWA recommendation met); sidewalks are the appropriate width (i.e., 5' in residential areas and 8' in commercial urban areas); crossing treatments are addressed (i.e., crosswalks/pedestrian signals);

		appropriate buffers between pedestrians and motor traffic (i.e., parked cars/landscaping/protected bike lanes); traffic calming where warranted (i.e., road diets, lane diets, pedestrian refuge islands, right corner islands); sufficient and appropriate pedestrian lighting; and large sidewalk obstructions are absent in pedestrian through zone (i.e., lighting, utility poles).
Medium-Stress 6 points	Conventional bike lanes next to 30 mph auto traffic.	Sidewalks on one side/both sides of the road (per FHWA recommendation, only the “required” level is met when a “preferred” level is proposed).
Medium-High Stress 4 points	Conventional bike lanes next to 35+ mph auto traffic; and mixed flow traffic at 30 mph.	Sidewalks on one side/both sides of the road (per FHWA recommendation, sidewalks are on one side when FHWA lists two sides as “required”).
High-Stress Zero points	Conventional bike lanes next to traffic speeds 40+ mph; riding in mixed traffic at 35+ mph; “Share the Road” or “Bikes May Use Full Lane” signage where not warranted; conflicts with intersections and driveways along a shared use path; and not addressing barriers in the network.	Long blocks with no mid-block crossings; long pedestrian crossing distances; lacks warranted crossing treatments; pedestrian pushbuttons do not exist at controlled intersections; and lighting/utility obstructions in pedestrian path.

** For applicants proposing bicycle and pedestrian projects, an average of those two scores will be taken.*

** All projects are required to be ADA compliant.*

Promote Safety (70 total points)

As identified in *Connected2045*, East-West Gateway is focusing on lowering the number of fatalities and serious injuries caused by vehicle crashes. To meet this goal, projects should be addressing safety issues in high crash areas or should be using the systemic approach of fixing safety issues across the system where crashes are likely to happen.

Project sponsors can follow one of two tracks in this category. Track one should be used if the project location has documented crashes and track two should be used if the project location does not have a documented problem but is listed in a plan as an area suitable for preventive safety countermeasures. Track one has a total of seventy (70) points possible where track two has 40 points possible. This puts the priority on projects with a documented crash history to help reduce the region’s crash rate. Missouri regional crash rate and an Illinois regional crash rate will be developed; sponsors will use the same formula to calculate the project crash rate.

TRACK ONE: PROJECTS WITH A DOCUMENTED CRASH PROBLEM (70 points):

The project crash rate will use the most recent five consecutive calendar years in which data is available. East-West Gateway used MoDOT and IDOT's most recent data to compile the regional crash rate for both Missouri and Illinois. Due to limited intersection data available for Missouri, East-West Gateway used the data from IDOT to compile a regional intersection crash rate. To make sure the project crash rates are being fairly scored against the regional rates, sponsors must use crash data from 2009-2013.

10 points Project crash rate is equal to or greater than MO/IL regional crash rate **OR** project intersection crash rate is equal to or greater than the IL regional intersection crash rate.

5 points Project crash rate is less than MO/IL regional crash rate **OR** project intersection crash rate is less than the IL regional intersection crash rate.

To find the project crash rate, use the formula below:

$$\frac{(\text{Number of total crashes}) \times 100,000,000 \text{ vehicle miles traveled}}{(\text{Project Length}) \times (\text{Project Average Daily Traffic}) \times (\text{Number of Crash Years}) \times 365}$$

OR if the project is at an intersection, use the formula below:

$$\frac{(\text{Number of Accidents}) \times 100,000,000 \text{ million entering vehicles}}{(\text{Number of crash years}) \times (\text{Entering AADT}) \times 365 \text{ days/year}}$$

AND

The project fatality and serious injury rate will use the most recent five consecutive calendar years in which data is available. East-West Gateway used MoDOT and IDOT's most recent data to compile the fatality and serious injury crash rate for both Missouri and Illinois. To make sure the project fatality and serious injury rates are being fairly scored against the regional fatality and serious injury rates, sponsors must use crash data from 2009-2013. Please note: Sponsor should use the number of fatal and serious injuries crashes NOT the total number of fatalities and serious injuries.

10 points Project fatality and serious injury crash rate is equal to or greater than MO/IL fatality and serious injury crash rate **OR** project fatality and serious injury intersection crash rate is equal to or greater than the IL regional intersection fatality and serious injury crash rate.

5 points Project fatality and serious injury crash rate less than MO/IL regional fatality and serious injury crash rate **OR** project fatality and serious injury intersection crash rate is less than the IL regional intersection fatality and serious injury crash rate.

To find the project fatality and serious injury rate, use the formula below.

$$\frac{(\text{Number of fatal and serious injury crashes}) \times 100,000,000 \text{ vehicle miles traveled}}{(\text{Project Length}) \times (\text{Project Average Daily Traffic}) \times (\text{Number of Crash Years}) \times 365}$$

OR if the project is at an intersection, use the formula below:

$$\frac{(\text{Number of fatal and serious injury crashes}) \times 100,000,000 \text{ million entering vehicles}}{(\text{Number of crash years}) \times (\text{Entering AADT}) \times 365 \text{ days/year}}$$

AND

East-West Gateway will also look at the benefit/cost ratio of the project. Projects with the higher benefit/cost ratio will score higher points in this section. To find the benefit/cost ratio use all formulas below. If the benefit/cost ratio is less than 1.0 the project will not receive any points for benefit/cost because the cost outweighs the benefit.

- 50 points** Benefit/cost ratio greater than 3.0
- 48 points** Benefit/cost ratio is greater than 2.5 and less than 3.0
- 46 points** Benefit/cost ratio is greater than 2.0 and less than 2.5
- 44 points** Benefit/cost ratio is greater than 1.5 and less than 2.0
- 42 points** Benefit/cost ratio is greater than 1.0 and less than 1.5
- Zero points** Benefit/cost ratio is less than 1.0

To find the Benefit/Cost ratio use the formula below.

$$\text{Benefit/Cost Ratio} = \text{Present Value of Benefits (PVB)} / \text{Present Value of Costs (PVC)}$$

To find the PVB use the formulas below.

$$\text{PVB} = \text{Annual Benefit} \times \left[\frac{(1+i)^n - 1}{i(1+i)^n} \right]$$

Annual Benefit = [(Total Number of Fatal Crashes X The Cost of a Fatal Crash*) + (Total Number of Serious Injury Crashes X The Cost of a Serious Injury Crash*) + (Total Number of Minor Injury Crashes X The Cost of a Minor Injury Crash*) + (Total Number of Property Damage Only Crashes X The Cost of a Property Damage Only Crash*)] X(Crash Modification Factor*)]

$$\left[\frac{(1+i)^n - 1}{i(1+i)^n} \right]$$

$$i = 3\%$$

$$n = \text{Lifespan of countermeasure in years} *$$

To find the PVC use the formulas below.

$$\text{PVC} = \{ \text{Total Cost of Project} \times \left[\frac{(1+i)^n - 1}{i(1+i)^n} \right] \} + \{ \text{Maintenance Cost} \times \text{Lifespan of Countermeasure} \times \left[\frac{(1+i)^n - 1}{i(1+i)^n} \right] \}$$

Total Cost of Project = this includes all phases of the project (PE, ROW, and construction).

$$[(1 + i)^n - 1]/i(1 + i)^n$$

$i = 3\%$

$n =$ Amount of years from the current year until the construction phase.

i.e., Current year is 2017 and project will have construction in fiscal year 2021. n would equal 5

Maintenance cost = the maintenance cost of the countermeasure

Lifespan of countermeasure= can be found in Appendix F of IDOT’s Benefit-Cost Tool User Guide

$$[(1 + i)^n - 1]/i(1 + i)^n$$

$i = 3\%$

$n =$ Lifespan of countermeasures in years

*Use the costs below when entering in the cost of crashes by severity level in the Annual Benefit formula. Both Missouri and Illinois projects should use these costs. East-West Gateway is using the MoDOT’s 2014 updated costs. These costs were originally from the Safety-Handbook for Locals (S-HAL), produced by the University of Missouri, and updated by multiplying the 2014 Consumer Price Index.

Average Comprehensive Cost by Injury Severity	2014 Costs
Fatal (K)	\$5,021,902
Serious Injury (A)	\$313,869
Minor Injury (B,C)	\$81,606
Property Damage Only (O)	\$4,565

*To find the lifespan of countermeasures see Appendix F of IDOT’s Benefit-Cost Tool User Guide. Both Missouri and Illinois projects should use this list. This list can be found on page 244 in the IDOT Safety and Engineering Policy Memorandum².

*To find the Crash Modification Factor (CMF) go to <http://www.cmfclearinghouse.org>. Sponsors will need to enter in the safety countermeasure and select the CMF that best describes the project. Once the CMF is selected, the sponsor will need to scroll to the bottom and select EXPORT PDF. This PDF must be included with the application. Another resource sponsors may use to find the CMF is Table 5.4 of the Missouri Department of Transportation S-HAL³: Safety Handbook for Locals produced by the University of Missouri. This can be used for both Missouri and Illinois sponsors. Table 5.4 consists of commonly used countermeasures organized alphabetically by general category of the countermeasure. This table does NOT include all countermeasures but may be an easier way to search for possible countermeasures for the

² IDOT Safety and Engineering Policy Memorandum: <http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Manuals-Guides-&-Handbooks/Safety/SAFETY%201.06%20-%20Safety%20Engineering%20Policy%20Memorandum.pdf>.

³ S-HAL: http://epg.modot.org/files/3/35/907.5_SHAL.pdf

project. In the column titled CMF Clearinghouse ID, sponsors will find the ID number for the CMF. Sponsors should type this ID number into the Clearinghouse website to pull up the detailed information sheet. This is the sheet that must be printed and submitted with the application.

TRACK TWO: PROJECTS IS USING PREVENTATIVE COUNTERMEASURES (40 points):

East-West Gateway understands the importance of being proactive when it comes to transportation safety. A Strategic Highway Safety Plan was created for each county in East-West Gateway's region. These plans look at areas with crash history as well as list countermeasures that can be implemented across the system. Sponsors can also refer to their respective state's Strategic Highway Safety Plan⁴ to find safety countermeasures to apply systemically across their system.

40 points The project may have little to no documented crash issue but a preventive safety countermeasure is being used as a result of a plan or study.

Sponsors will need to provide a safety study, show the countermeasure is listed in a plan or have a reason behind using the safety countermeasure for this specific project. If a project is using proven safety countermeasures and is listed in a plan or a study has been completed for the project, it will get the full 40 points.

Strengthen Intermodal Connections (5 total points)

The St. Louis region is well positioned to capture some of the expected growth in nationwide freight movement for all modes, given the region's central location, rivers, low traffic congestion and lack of tolling. Future growth will depend on coordinating public and private freight decision making and investments, ensuring reliable truck travel times, strengthening multi-modal connections to the 23 key industrial site areas, and ensuring the region's workforce can access freight employment opportunities. A map of the 23 key industrial site areas as well as the Primary Highway Freight System is provided in below and in Appendix XX.

5 points Project meets one of the following four criteria:

- Located within one of 23 key industrial site areas⁵
- Connects to a Critical Urban Freight Corridor (CUFC)⁶
- Connects to a Critical Rural Freight Corridor (CRFC)⁷
- Connects to the Primary Highway Freight System (PHFS)⁸

AND

⁴ IDOT's Strategic Highway Safety Plan and Highway Safety Plan: <http://www.idot.illinois.gov/transportation-system/transportation-management/planning/SHSP>

MoDOT's Strategic Highway Safety Plan and Highway Safety Plan: <http://www.modot.org/safety/>

County strategic highway safety plan: [Insert link here](#)

⁵ **Industrial Site Areas** identified in the 2014 St. Louis Regional Freight Study: <http://www.ewgateway.org/freight/freight.htm>

⁶ **Critical Urban Freight Corridor:** public roads in urbanized areas which provide access and connection to the PHFS and the Interstate with other ports, public transportation facilities, or other intermodal transportation facilities.

⁷ **Critical Rural Freight Corridor:** public roads not in an urbanized area which provide access and connection to the PHFS and the Interstate with other important ports, public transportation facilities, or other intermodal freight facilities.

⁸ **Primary Highway Freight System:** <http://ops.fhwa.dot.gov/freight/infrastructure/nfn/index.htm>

- Connects to an intermodal freight facility, serves a major freight generator, logistic center, manufacturing and warehouse industrial land, or navigable waterway or Port District⁹.

3 points Project is located within one of 23 key industrial site areas, connects to a CUFC, connects to a CRFC, connects to the PHFS, **OR** project connects to an intermodal freight facility, serves a major freight generator, logistic center, manufacturing and warehouse industrial land, or navigable waterway or Port District.

Zero points Project does not strengthen intermodal connections.

***Please note: CUFC's and CRFC's are currently under development.** States and in certain cases, Metropolitan Planning Organizations (MPOs), are responsible for designating public roads for the CRFCs and CUFCs in accordance with section 1116 of the FAST Act. State designation of the CRFCs is limited to a maximum of 150 miles of highway or 20 percent of the PHFS mileage in the State, whichever is greater. State and MPO designation of the CUFC is limited to a maximum of 75 miles of highway or 10 percent of the PHFS mileage in the State, whichever is greater. Guidance in accordance with the FAST Act section 1116 will be developed to provide information on the identification, designation, and certification of these corridors.*

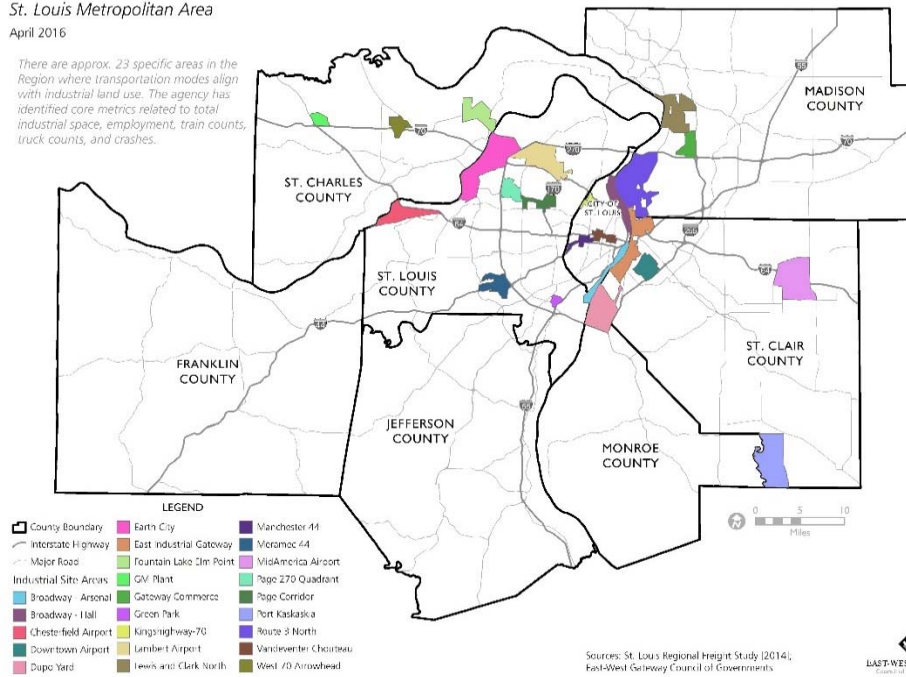
⁹ Intermodal Connectors for Missouri:
http://www.fhwa.dot.gov/planning/national_highway_system/intermodal_connectors/missouri.cfm
Intermodal Connectors for Illinois:
http://www.fhwa.dot.gov/planning/national_highway_system/intermodal_connectors/illinois.cfm

Industrial Site Areas

St. Louis Metropolitan Area

April 2016

There are approx. 23 specific areas in the Region where transportation modes align with industrial land use. The agency has identified core metrics related to total industrial space, employment, train counts, truck counts, and crashes.

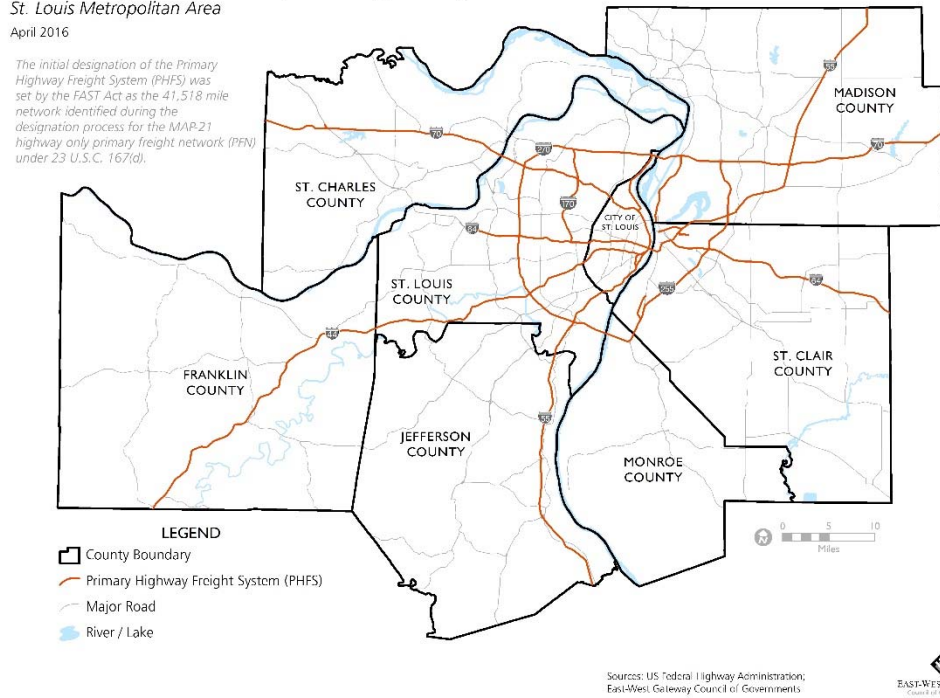


Primary Highway Freight System

St. Louis Metropolitan Area

April 2016

The initial designation of the Primary Highway Freight System (PHFS) was set by the FAST Act as the 41,518 mile network identified during the designation process for the MAP-21 highway only primary freight network (PFN) under 23 U.S.C. 167(d).



Traffic Flow Scoring Criteria

<i>Preserve and Maintain: 5</i>
<i>Support Public Transit: 5</i>
<i>Support Neighborhoods and Communities: 5</i>
<i>Foster a Vibrant Downtown and Central Core: 5</i>
<i>Provide More Transportation Choices: 5</i>
<i>Safety and Security: 10</i>
<u><i>Support a Diverse Economy with a Reliable Transportation System: 50</i></u>
<i>Support Quality Job Development: 5</i>
<i>Strengthen Intermodal Connections: 5</i>
<i>Protect Air Quality/Environmental: 5</i>
Total: 100

Preserve and Maintain the Existing System (5 total points)

In order to align the development of the Transportation Improvement Program (TIP) with *Connected2045*, preserving and maintaining the existing transportation system is one of the region's top priorities. By prioritizing preservation of the system, we can reduce the costs of deferred maintenance, improve safety, and foster regional economic growth. While the overarching goal is to ensure the transportation system remains in a good state of repair by managing and maintaining current roadway, bridge, transit, and intermodal assets, sponsors should incorporate other guiding principles from the long-range plan as well. Ideal projects are those that support public transit, promote safety, provide more transportation choices, reduce congestion, or strengthen intermodal connections, in addition to preserving the existing system.

In this section, projects will be assessed in terms of how they contribute to the preservation of existing infrastructure assets. Only projects that propose to replace, rehabilitate, or repair a facility can receive points – projects that propose to construct an entirely new facility will receive zero points.

Road projects:

Pavement condition will be assessed using the Pavement Surface Evaluation and Rating (PASER)¹ Guide, which is a visual rating system. A PASER rating number must be included on the applicable page number of the application and documentation must be provided to show how this rating was determined. PASER ratings range from 1-10, with 1 being 'very poor' condition and 10 being 'excellent' condition. For accurate ratings, the pavement must be rated at locations at a uniform distance. This distance should be no more than ¼-mile for urban areas or ½-mile for rural areas. The distance between rating locations should be included in final calculations of the average rating. Photographs of the pavement at the rating locations are required, as well as a map showing the rating locations. Examples of the types of improvements typically used on roadways with different pavement ratings, as well as their associated scores, are listed below. This is meant to be illustrative, and not an exhaustive list of improvements eligible for funding.

¹ Information on PASER available at: <http://www.apa-mi.org/docs/Asphalt-PASERManual.pdf>.

- 5 points** PASER 1-2 (very poor) – Including, but not limited to, full reconstruction of the facility, regardless of pavement condition. Reconstruction may be due to deterioration or deficient design.
- 4 points** PASER 3-4 (poor) – Including, but not limited to, structural improvements such as extensive slab replacement, joint rehabilitation, or full-depth pavement repairs
- 3 points** PASER 5-6 (fair) – Including, but not limited to, project elements that are primarily focused on preservative treatments and non-structural surface repairs.
- 2 points** PASER 7 (good) – Including, but not limited to, routine sealing and minor patching of pavement to prevent further deterioration.
- 1 point** PASER 8 (very good) – Including, but not limited to, routine sealing and minor patching of pavement to prevent further deterioration.
- Zero points** PASER 9-10 (excellent) – Including, but not limited to, pavement in new or like-new condition with no maintenance required.

*Documentation required – Attach relevant documentation, including but not limited to: calculations, photos, and/or maps. Points will be assigned only if the project will improve the deficient condition and documentation of the condition is provided with the project application.

OR

Bridge projects:

Bridge conditions will be assessed using the bridge sufficiency rating system, approved by FHWA. A bridge sufficiency rating number must be listed on page # of the application and documentation of this rating must be provided. Bridge sufficiency ratings range from 0-100, with 0 being completely deficient and 100 being a new or entirely sufficient bridge. State DOTs calculate the ratings based on a number of factors including width, vertical clearance, load capacity, essentiality for public use, and structural safety. A copy of the state’s bridge inspection report is required. If a bridge inspection report is not available, please contact East-West Gateway staff for assistance.

- 5 points** Bridge sufficiency rating 0-39.9 (very poor)
- 4 points** Bridge sufficiency rating 40-49.9 (poor)
- 3 points** Bridge sufficiency rating 50-59.9 (fair)
- 2 points** Bridge sufficiency rating 60-79.9 (good)

*Documentation required – Attach the state bridge inspection report identifying the sufficiency rating. Points will be assigned only if the project will improve deficient condition (structural or functional) and documentation of condition is provided with the project application. For

maintenance activities, attach systemic maintenance plan. Preventative maintenance project processes must previously have been reviewed and approved by FHWA (or review is underway).

AND/OR

ITS components:

Up to five (5) points can be earned if the project proposes to preserve ITS components such as signals or traffic sensors. ITS components must be within the project limits and not related to the Level of Strategy being applied in the Support a Diverse Economy section of this application. *Projects that preserve road or bridge infrastructure **AND** incorporate ITS components will receive the average of the two scores. For example: 5 points for roadway resurfacing + 3 points for signal upgrades = 4 points overall for preservation.*

5 points ITS components are inoperable and need full replacement.

3 points ITS components require repairs, improvements, or upgrades only.

Support Public Transportation (5 total points)

Public transit provides a variety of benefits, including accessible transportation options for all ages and abilities. Under this criterion, five (5) points are awarded if the project intersects or is located within a transit route (including Amtrak and intercity bus service) **AND** includes physical improvements to the transit system. Physical improvements to bus stop include: sidewalks to transit facilities, removing obstructions blocking access to transit facilities, landing pads, appropriate street crossings near transit facilities, lighting, bus shelters, benches, etc. If the project intersects or is located within a transit route (including Amtrak and intercity bus service), and does not include physical improvements to the transit system, two (2) points are assigned. If the project limits is not on a transit route, zero points are assigned. East-West Gateway staff will use Bi-State Development, Madison County Transit, and St. Clair County Transit route data and GIS analysis to determine if the project intersects or is located on a transit route.

5 points Project intersects or located within a transit route **AND** includes physical improvements to transit system.

2 points Project intersects or located within a transit route.

Zero points Project is not on a transit route.

Support Neighborhoods/Communities (5 total points)

This criterion is included to account for projects that are located in Environmental Justice (EJ) areas. This is to ensure that populations that have traditionally been underserved have safe access to community resources and meaningful choices in transportation. East-West Gateway will use minority and low-income household Census data and GIS analysis to determine if the project is located in an EJ area. If the project falls in an EJ area, five (5) points are awarded. If the project is not located in an EJ area, zero points are assigned. A map of the EJ areas is provided below and in Appendix XX.

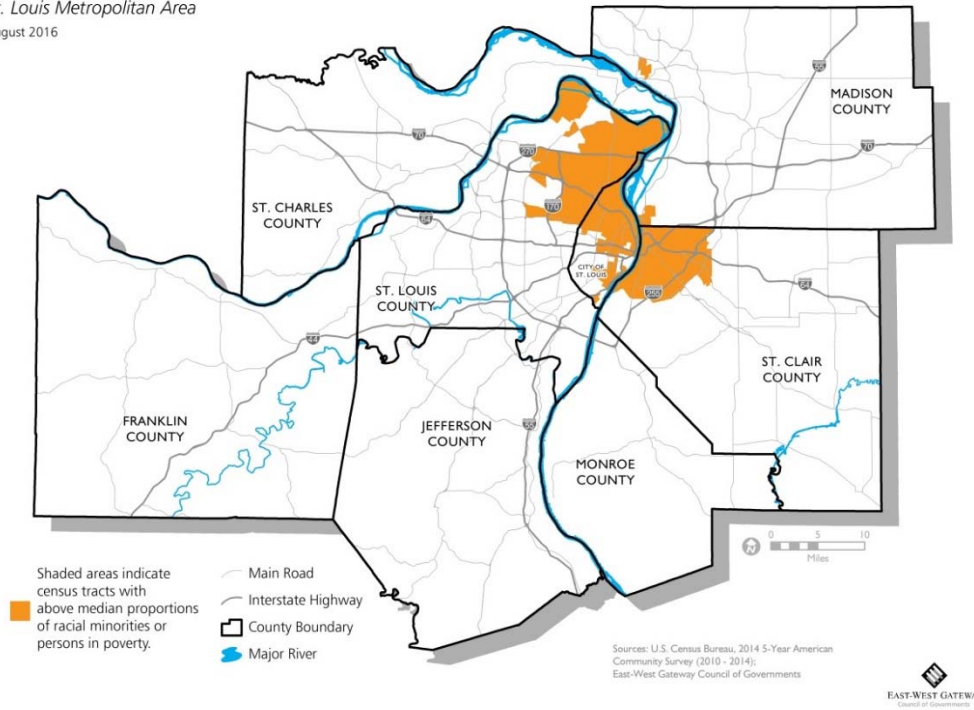
Furthermore, projects located within environmental justice areas will not earn points if they impose a burden on the population of the area. Burdens may include disruption of community cohesion (i.e., access to schools, parks, medical facilities, and religious institutions), adverse employment effects, decline in tax base or property values, displacements, increased noise and/or emissions, diminished aesthetics, and disruption to businesses, parking, or access to transit.

5 points Project falls in, or partially in, an EJ tract **AND** does not impose burden.

Zero points Project is not located in an EJ tract.

Environmental Justice Populations by Census Tract

St. Louis Metropolitan Area
August 2016



Foster a Vibrant Downtown and Central Core (5 total points)

The central core serves as the region’s primary economic engine. Improving access to and mobility within the central core will strengthen the St. Louis regional economy and enhance the quality of life for residents and visitors. Projects that are located within the central score, as illustrated in Connected2045, will receive five (5) points. Projects that are not located in the central core will receive zero points.

5 points Located in central core (per Connected2045).

Zero points Not located in central core.

Provide More Transportation Choices (5 total points)

Per the 2010 USDOT Policy Statement: *Bicycle and Pedestrian Accommodation Regulations and Recommendations*, every transportation agency has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. The USDOT encourages transportation agencies to go beyond the minimum requirements, and proactively provide convenient, safe, and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate. Per the 2013 FHWA Memorandum: *Bicycle and Pedestrian Design Flexibility* and the *Questions & Answers about Design Flexibility for Pedestrian and Bicycle Facilities*, FHWA recommends a flexible approach to pedestrian and bicycle facility design. The AASHTO *Guide for the Planning, Design, and Operation of Pedestrian Facilities* and the AASHTO *Guide for the Development of Bicycle Facilities* are the primary national resources for planning, designing, and operating pedestrian and bicycle facilities. The NACTO *Urban Street Design Guide* and the ITE *Designing Urban Walkable Thoroughfares: A Context Sensitive Approach* guide builds upon the flexibilities provided in the AASHTO guides and can be used when designing safe and convenient pedestrian and bicycle facilities. The NACTO guide does not supersede compliance with the ADA Standards for Accessible Design, PROWAG, and MUTCD.

For bicycle or pedestrian projects to receive full points, improvements must be context sensitive and appropriate, go beyond minimum standards, and include features that are both safe and comfortable. If the project implements new or improved bicycle or pedestrian facilities that include low-stress features, five (5) points will be awarded. If the project implements medium-stress features, three (3) points will be assigned. If the project implements medium-high stress features, two (2) points will be assigned. If a high-stress facility type is proposed, zero points will be assigned. If bicycle or pedestrian facilities are not included in the project, project sponsors must provide an explanation as to why they are not included. Failure to include bicycle and/or pedestrian facilities may result in the project not being funded.

- 5 points** Low-stress facility proposed.
- 3 points** Medium-stress facility proposed.
- 2 points** Medium-high stress facility proposed.
- Zero points** High-stress facility proposed.

Examples of each stress level are provided below:

<i>Level of Stress</i>		
	Bicycle Examples	Pedestrian Examples
Low-Stress 5 points	Physically separated bikeways, including shared use paths, cycle tracks, and protected bike lanes; bike lanes 6' wide or more; paved shoulders on rural	Sidewalks on one side/both sides of the road (maximum FHWA recommendation met); sidewalks are the appropriate width (i.e., 5' in residential areas and 8' in

	roadways; low volume, mixed-flow traffic at 25 mph or less; and intersections easy to approach and cross.	commercial urban areas); crossing treatments are addressed (i.e., crosswalks/pedestrian signals); appropriate buffers between pedestrians and motor traffic (i.e., parked cars/landscaping/protected bike lanes); traffic calming where warranted (i.e., road diets, lane diets, pedestrian refuge islands, right corner islands); sufficient and appropriate pedestrian lighting; and large sidewalk obstructions are absent in pedestrian through zone (i.e., lighting, utility poles).
Medium-Stress 3 points	Conventional bike lanes next to 30 mph auto traffic.	Sidewalks on one side/both sides of the road (per FHWA recommendation, only the “required” level is met when a “preferred” level is proposed).
Medium-High Stress 2 points	Conventional bike lanes next to 35+ mph auto traffic; and mixed flow traffic at 30 mph.	Sidewalks on one side/both sides of the road (per FHWA recommendation, sidewalks are on one side when FHWA lists two sides as “required”).
High-Stress Zero points	Conventional bike lanes next to traffic speeds 40+ mph; riding in mixed traffic at 35+ mph; “Share the Road” or “Bikes May Use Full Lane” signage where not warranted; conflicts with intersections and driveways along a shared use path; and not addressing barriers in the network.	Long blocks with no mid-block crossings; long pedestrian crossing distances; lacks warranted crossing treatments; pedestrian pushbuttons do not exist at controlled intersections; and lighting/utility obstructions in pedestrian path.

** For applicants proposing bicycle and pedestrian projects, an average of those two scores will be taken.*

** All projects are required to be ADA compliant.*

Promote Safety (10 total points)

As identified in *Connected2045*, East-West Gateway is focusing on lowering the number of fatalities and serious injuries caused by vehicle crashes. To meet this goal, projects should be addressing safety issues in high crash areas or should be using the systemic approach of fixing safety issues across the system where crashes are likely to happen.

Project sponsors can receive points if the project addresses a location with documented crashes as well as locations with undocumented crashes. If the project location has documented crashes, the project crash rate and fatality and serious injury rate will need to be calculated. A project with a higher crash rate and fatality and serious injury rate than the MO/IL regional rate will receive the most points in this category. If the project location does not have a documented problem but is listed in a plan as an area suitable for preventive safety countermeasures, it will be eligible for the minimum points in the safety section. This puts the priority on projects with a documented crash history to help reduce the region’s crash rate. Missouri regional crash rate

and an Illinois regional crash rate will be developed; sponsors will use the same formula to calculate the project crash rate.

TRACK ONE: PROJECTS WITH A DOCUMENTED CRASH PROBLEM (10 points):

- 10 points** Project crash rate **AND** the fatality and serious injury rate is equal to or greater than MO/IL regional rates and includes countermeasures
OR
Project intersection crash rate **AND** project fatality and serious injury intersection crash rate is equal to or greater than the IL regional intersection crash rates and includes countermeasures.
- 8 points** Either the project crash rate **OR** the fatality serious injury rate is equal to or greater than MO/IL regional rates and includes countermeasures
OR
Project intersection crash rate **OR** project fatality and serious injury intersection crash rate is equal to or greater than the IL regional intersection crash rates and includes countermeasures.
- 5 points** Project crash rate **AND** the fatality and serious injury rate is less than MO/IL regional crash rate and includes countermeasures
OR
Project intersection crash rate **AND** project fatality and serious injury intersection crash rate is less than the IL regional intersection crash rates and includes countermeasures.
- Zero points** Project does not address safety.

Conducting the crash rate:

The project crash rate will use the most recent five consecutive calendar years in which data is available. East-West Gateway used MoDOT and IDOT's most recent data to compile the regional crash rate for both Missouri and Illinois. To make sure the project crash rates are being fairly scored against the regional rates, sponsors must use crash data from 2009-2013.

Please note: Sponsor should use the number of fatal and serious injuries crashes and not the total number of fatalities and serious injuries.

To find the project crash rate, use the formula below:

$$\frac{(\text{Number of total crashes}) \times 100,000,000 \text{ vehicle miles traveled}}{(\text{Project Length}) \times (\text{Project Average Daily Traffic}) \times (\text{Number of Crash Years}) \times 365}$$

OR if the project is at an intersection, use the formula below:

$$\frac{(\text{Number of Accidents}) \times 100,000,000 \text{ million entering vehicles}}{(\text{Number of crash years}) \times (\text{Entering AADT}) \times 365 \text{ days/year}}$$

Conducting the fatality and serious injury rate:

The project fatality and serious injury rate will use the most recent five consecutive calendar years in which data is available. East-West Gateway used MoDOT and IDOT's most recent data to compile the fatality and serious injury crash rate for both Missouri and Illinois. To make sure the project fatality and serious injury rates are being fairly scored against the regional fatality and serious injury rates, sponsors must use crash data from 2009-2013. Please note: Sponsor should use the number of fatal and serious injuries crashes not the total number of fatalities and serious injuries.

To find the project fatality and serious injury rate, use the formula below.

$$\frac{(\text{Number of fatal and serious injury crashes}) \times 100,000,000 \text{ vehicle miles traveled}}{(\text{Project Length}) \times (\text{Project Average Daily Traffic}) \times (\text{Number of Crash Years}) \times 365}$$

OR if the project is at an intersection, use the formula below:

$$\frac{(\text{Number of fatal and serious injury crashes}) \times 100,000,000 \text{ million entering vehicles}}{(\text{Number of crash years}) \times (\text{Entering AADT}) \times 365 \text{ days/year}}$$

TRACK TWO: PROJECTS WITHOUT A DOCUMENTED CRASH PROBLEM (5 points):

5 points Project does not have crashes **AND** includes preventative countermeasures to address potential crashes.

Zero points Project does not address safety.

To receive points in this category, sponsors must include a safety countermeasure. Sponsors must include the countermeasure's Crash Modification Factor (CMF) detailed sheet* to receive any points in this category. Sponsors must also provide the rates or identify plans as listed below.

Preventative countermeasures:

East-West Gateway understands the importance of being proactive when it comes to transportation safety. A Strategic Highway Safety Plan was created for each county in East-West Gateway's region. These plans look at areas with crash history as well as list countermeasures that can be implemented across the system. Sponsors can also refer to their respective state's Strategic Highway Safety Plan² to find safety countermeasures to apply systemically across their system.

Sponsors will need to provide a safety study, show the countermeasure is listed in a plan, or have a reason behind using the safety countermeasure for this specific project. If a project is using proven safety countermeasures and is listed in a plan or a study has been completed for the project, it will get the full five (5) points.

² IDOT's Strategic Highway Safety Plan and Highway Safety Plan: <http://www.idot.illinois.gov/transportation-system/transportation-management/planning/SHSP>

MoDOT's Strategic Highway Safety Plan and Highway Safety Plan: <http://www.modot.org/safety/>

County strategic highway safety plan: **Insert link here**

* To find the CMF go to <http://www.cmfclearinghouse.org>. Sponsors will need to enter in the safety countermeasure and select the CMF that best describes the project. Once the CMF is selected, the sponsor will need to scroll to the bottom and select EXPORT PDF. This PDF must be included with the application. Another resource sponsors may use to find the CMF is Table 5.4 of the Missouri Department of Transportation S-HAL³: Safety Handbook for Locals produced by the University of Missouri. This can be used for both Missouri and Illinois sponsors. Table 5.4 consists of commonly used countermeasures organized alphabetically by general category of the countermeasure. This table does NOT include all countermeasures but may be an easier way to search for possible countermeasures for the project. In the column titled CMF Clearinghouse ID, sponsors will find the ID number for the CMF. Sponsors should type this ID number into the Clearinghouse website to pull up the detailed information sheet. This is the sheet that must be printed and submitted with the application.

Support a Diverse Economy with a Reliable Transportation System (50 total points)

The Congestion Management Process (CMP) identifies congestion in the St. Louis region as a result of issues involving capacity constraints, traffic incidents, work zones, weather, traffic control devices, special events and fluctuations in normal traffic. There are two types of congestion, recurring and non-recurring. Recurring congestion occurs daily as the result inadequate physical road capacity. When congestion is consistent from day to day, road users are able to plan for the impact of that congestion on their trip. Non-recurring congestion occurs on roadways that experience an unexpected delay. When there are unexpected delays on roads that are already congested, it significantly impacts traffic flow.

Improving congested roadways benefits the movement of people and goods. Congestion impacts the time it takes for travelers to reach their destination as well as the expense associated with making the trip. Both recurring and non-recurring congestion can be mitigated through the use of several strategies identified in the Strategic Highway Research Program's (SHRP2) "Evaluating Alternative Operations Strategies to Improve Travel Time Reliability", lane additions, or adding capacity such as a new road.

This application will evaluate projects based on how well they improve travel conditions and/or travel time reliability along a congested roadway. There are two tracks to this application, Travel Time Reliability and Capacity Adding/New Road. Sponsors may only select one track when submitting project applications.

TRACK ONE: TRAVEL TIME RELIABILITY (50 points):

Non-recurring congestion on roadways will be assessed using three measures, the Planning Time Index (PTI), Travel Time Index (TTI) and the Volume to Capacity (V/C) ratio. The PTI and TTI are derived from HERE data from the Regional Integrated Transportation Information System (RITIS). The PTI is the total time a traveler should plan for to ensure on-time arrival 95% of the time. The PTI includes the daily delay along a route as well as unexpected delay. The TTI is travel time represented as a percentage of the ideal travel time (Travel Time / Free-flow Travel Time). The PTI and TTI will only be calculated on roadways for which probe data is available. Therefore,

³ S-HAL: http://epg.modot.org/files/3/35/907.5_SHAL.pdf

roads with lower functional classifications will be evaluated based on the V/C ratios established in East-West Gateway's travel demand model (TDM) and field observation.

Higher PTI's, TTI's and V/C ratios are indicative of higher levels of congestion. The strategies identified below can be used to mitigate the presence of congestion. These strategies are broken up into five categories, Level 0, Level 1, Level 2, Level 3, and Level 4 Strategies. Each strategy has a proven effect on delay reduction. Please refer to **Appendix XX** for a list of the strategies, treatments and their impact on travel delay.

Projects will be scored using a two-pronged evaluation. The first part of the evaluation is to determine the PTI and TTI or V/C ratio for the project length. The points assigned to the PTI and TTI will be averaged. The second part of the evaluation is to determine the strategy being applied to address congestion. Projects will be awarded points based on an average of the points assigned for the PTI and TTI or V/C ratio and the level of strategy applied to address the congestion problem. The distribution of points assigned to the PTI, TTI and V/C ratio is provided below.

For example: A project along a major arterial with a PTI of 1.2 and a TTI of 1.75 will receive an average of 20 points and 30 points for implementing a Level 3 Strategy to address the congestion, totaling 50 points. An average of the two scores will be taken for a total score of 25 points.

50 points	PTI 2.5 & up
40 points	PTI 2.1-2.49
30 points	PTI 1.7-2.09
20 points	PTI 1.35-1.69
10 points	PTI 1.1-1.34
AND	
50 points	TTI 2.0 & up
40 points	TTI 1.75-1.99
30 points	TTI 1.5-1.74
20 points	TTI 1.25-1.49
10 points	1.0-1.24
OR	
50 points	V/C 1.1 & up

- 40 points** V/C 0.96-1.0
- 30 points** V/C 0.85-0.95
- 10 points** V/C 0.7-0.84

AND

- 50 points** Level 0 Strategy – Lane Addition*
- 50 points** Level 1 and Level 2 Strategy
- 30 points** Level 3 Strategy
- 25 points** Level 4 Strategy

**Level 0 Strategy – New addition of lanes to an existing road can reduce congestion and improve traffic flow by increasing the road capacity. Since adding new lanes is a major construction project, other strategies should be investigated as possible alternatives to the lane addition. Also, projects must be consistent with the requirements of the CMP and provide supportive documentation as outlined above.*

TRACK TWO: CAPACITY ADDING/NEW ROAD (50 points):

Projects that require constructing a new road will receive up to 50 points. These projects must include a congestion management study showing that alternatives to the new capacity have been thoroughly investigated and/or the strategies above have been unsuccessfully exhausted as required by the CMP. Projects in this category will be evaluated based on how much traffic volume is expected to be decreased on an adjacent existing facility. The evaluation will include assigning points to the PTI or V/C on the existing facility that requires relief using Table 1 and the projected delay reduction and capacity improvements from the proposed change as documented by a travel demand model. Sponsors must provide documentation supporting the new facility and how well it relieves the congested road. Sponsors must provide maps and documentation showing the route drivers currently take and the route they are likely to take once the new facility is built.

Support Quality Job Development (5 total points)

The *OnTheMap* tool is derived from census data and will be used to assess where workers are employed in the region. Employment density or jobs per census block will be used as a measure in determining how important improvements to transportation facilities are in the surrounding area. Each project will be assessed points based on its county location and number of jobs per

sq. mile. Up to five (5) points will be awarded based on the distribution in the *OnTheMap* tool at a county level.

5 points	High Jobs/Sq. Mile
4 points	Medium-High Jobs/Sq. Mile
3 points	Medium Jobs/Sq. Mile
2 point	Medium-Low Jobs/Sq. Mile
Zero points	Low Jobs/Sq. Mile

Strengthen Intermodal Connections (5 total points)

The St. Louis region is well positioned to capture some of the expected growth in nationwide freight movement for all modes, given the region’s central location, rivers, low traffic congestion and lack of tolling. Future growth will depend on coordinating public and private freight decision making and investments, ensuring reliable truck travel times, strengthening multi-modal connections to the 23 key industrial site areas, and ensuring the region’s workforce can access freight employment opportunities. A map of the 23 key industrial site areas as well as the Primary Highway Freight System is provided in below and in Appendix XX.

- | | |
|-----------------|--|
| 5 points | Project meets one of the following four criteria: <ul style="list-style-type: none">• Located within one of 23 key industrial site areas⁴• Connects to a Critical Urban Freight Corridor (CUFC)⁵• Connects to a Critical Rural Freight Corridor (CRFC)⁶• Connects to the Primary Highway Freight System (PHFS)⁷ <p style="text-align: center;">AND</p> <ul style="list-style-type: none">• Connects to an intermodal freight facility, serves a major freight generator, logistic center, manufacturing and warehouse industrial land, or navigable waterway or Port District⁸. |
| 3 points | Project is located within one of 23 key industrial site areas, connects to a CUFC, connects to a CRFC, connects to the PHFS, OR project connects to an intermodal freight facility, serves a major freight generator, logistic center, |

⁴ **Industrial Site Areas** identified in the 2014 St. Louis Regional Freight Study: <http://www.ewgateway.org/freight/freight.htm>

⁵ **Critical Urban Freight Corridor:** public roads in urbanized areas which provide access and connection to the PHFS and the Interstate with other ports, public transportation facilities, or other intermodal transportation facilities.

⁶ **Critical Rural Freight Corridor:** public roads not in an urbanized area which provide access and connection to the PHFS and the Interstate with other important ports, public transportation facilities, or other intermodal freight facilities.

⁷ **Primary Highway Freight System:** <http://ops.fhwa.dot.gov/freight/infrastructure/nfn/index.htm>

⁸ Intermodal Connectors for Missouri:

http://www.fhwa.dot.gov/planning/national_highway_system/intermodal_connectors/missouri.cfm

Intermodal Connectors for Illinois:

http://www.fhwa.dot.gov/planning/national_highway_system/intermodal_connectors/illinois.cfm

manufacturing and warehouse industrial land, or navigable waterway or Port District.

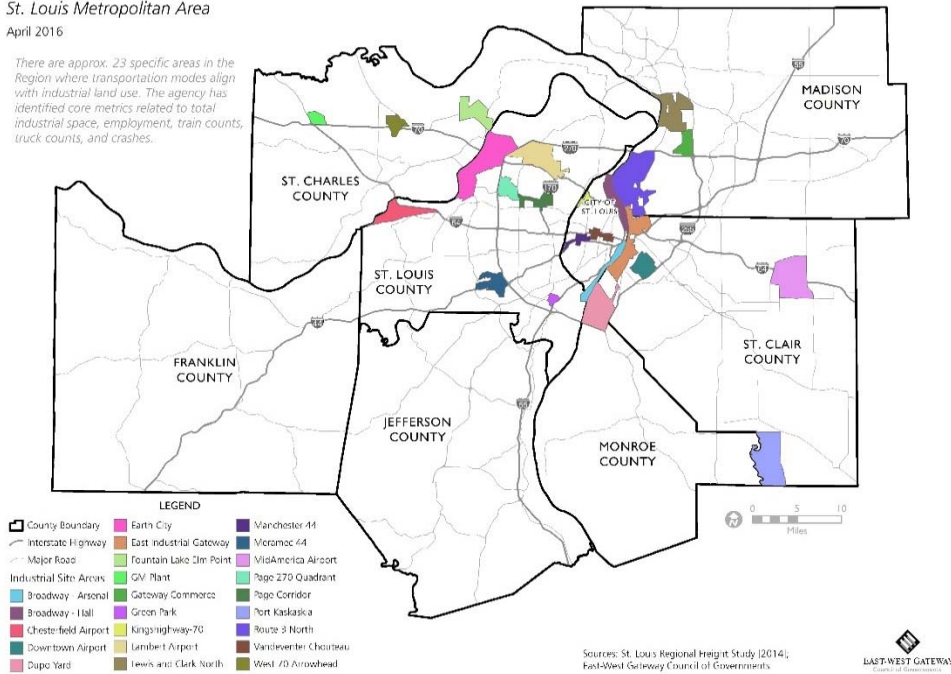
Zero points Project does not strengthen intermodal connections.

Please note: CUFC's and CRFC's are currently under development. States and in certain cases, Metropolitan Planning Organizations (MPOs), are responsible for designating public roads for the CRFCs and CUFCs in accordance with section 1116 of the FAST Act. State designation of the CRFCs is limited to a maximum of 150 miles of highway or 20 percent of the PHFS mileage in the State, whichever is greater. State and MPO designation of the CUFC is limited to a maximum of 75 miles of highway or 10 percent of the PHFS mileage in the State, whichever is greater. Guidance in accordance with the FAST Act section 1116 will be developed to provide information on the identification, designation, and certification of these corridors.

Industrial Site Areas

St. Louis Metropolitan Area
April 2016

There are approx. 23 specific areas in the Region where transportation modes align with industrial land use. The agency has identified core metrics related to total industrial space, employment, train counts, truck counts, and crashes.

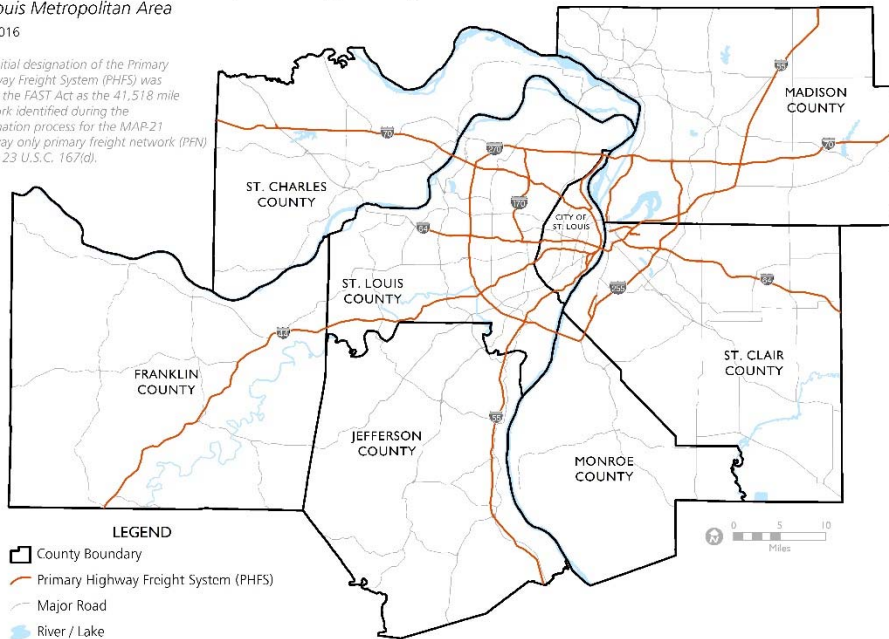


Primary Highway Freight System

St. Louis Metropolitan Area

April 2016

The initial designation of the Primary Highway Freight System (PHFS) was set by the FAST Act as the 41,518 mile network identified during the designation process for the MAP-21 highway only primary freight network (PFN) under 23 U.S.C. 167(d).



Sources: US Federal Highway Administration; East-West Gateway Council of Governments



Air Quality/Environment (5 total points)

Green infrastructure is a design approach to managing stormwater, the urban heat island effect, public health, and air quality. Sustainable stormwater management treats and slows runoff from impervious roadways, sidewalks, and building surfaces. Examples of green infrastructure include bioswales, rain gardens, pervious strips, pervious pavement, and green bulb-outs. If the proposed project includes green infrastructure, five (5) points are awarded. If the project does not provide any green infrastructure, zero points are assigned.

5 points Project includes green infrastructure elements.

Zero points Project does not include green infrastructure.

Table 6.7. Level 1 Strategies: Delay Reduction of Up to 50%

Category	Strategy	Treatment	Application to Sources of Congestion	Key Quantitative Benefit	Overall Cost Range ^a	Effectiveness–Cost Rank
Information collection and dissemination	Pre-trip information	National Traffic and Road Closure Information	Weather, work zones	Reduces delays (early and late arrivals) by 50%	Low–medium	1-B
Incident and special event management	Pre-event assistance	Service patrols	Traffic incidents	Can reduce incident response by 19% to 77% and incident clearance time by 8 min	High	1-E
	Post-event assistance	On-scene incident management (incident responder relationship, high-visibility garments, clear buffer zones, incident screens)	Traffic Incidents	Traffic incident management programs have reported reductions in incident duration from 15% to 65%	Low	1-A
		Work zone management	Work zones	Reduces work zone–related delays by 50% to 55%	Variable (depends on addition of infrastructure)	1-D
Infrastructure improvements and demand optimization	Signal timing, ITS	TMC	Traffic-control devices, special events, weather, work zones, traffic incidents	Reduces delay by 10% to 50%	High	1-E
		Traffic adaptive signal control, advanced signal systems	Traffic-control devices	Adaptive signal control systems have been shown to reduce peak period travel times by 6% to 53%	Medium–high	1-C
	Congestion pricing	Electronic toll collection (ETC)	Physical bottlenecks	Electronic toll collection (ETC) reduces delay by 50% for manual-cash customers and by 55% for automatic-coin-machine customers, and increases speed by 57% in the express lanes	High	1-E

Source: Evaluating Alternative Operations Strategies to Improve Travel Time Reliability SHRP2

Table 6.8. Level 2 Strategies: Delay Reduction of Up to 20%

Category	Strategy	Treatment	Application to Sources of Congestion	Key Quantitative Benefit	Overall Cost Range ^a	Effectiveness–Cost Rank
Information collection and dissemination	Surveillance and detection	Remote verification (CCTV)	Traffic-control devices, special events, weather, traffic incidents	5% reduction in travel times in nonrecurring congestion; overall 18% reduction in travel times	Medium	2-C
	Real-time information	Pretrip information by 511, websites, subscription alerts, radio	Traffic-control devices, special events, weather, work zones, traffic incidents	Potential reduction in travel time from 5% to 20%	Variable	2-E
		Road weather information systems	Weather	Reduces delays by up to 12%	Low–medium	2-B
	Roadside messages	Travel time message signs for travelers (DMS, VMS)	All	Improves trip-time reliability, with delay reductions ranging from 1% to 22%	High	2-F
Infrastructure improvements and demand optimization	Geometric design treatments	Bottleneck removal (weaving, alignment)	Physical bottlenecks	Reduces travel time by 5% to 15%.	Medium–high	2-D
	Signal timing, ITS	Signal retiming, optimization	Traffic-control devices	Reduction in travel time and delay of 5% to 20% when traffic-signal retiming was used	Low	2-A
		Advanced transportation automation systems, signal priority, and AVL	Traffic-control devices	Reduces transit delays by 12% to 21%	Low–medium	2-B
	Traffic demand metering	Ramp metering, ramp closure	All	An increase of mainline peak-period flows from 2% to 14% because of on-ramp metering, according to a study of ramp meters in North America	Low–medium	2-B
	Congestion pricing	Cordon pricing (areawide)	Physical bottlenecks, fluctuation in normal traffic, special events	A decrease in inner city traffic by about 20% from congestion pricing in London	Low–medium	2-B
	Lane treatments	Managed lanes: HOV, HOT, and TOT lanes	Physical bottlenecks, fluctuation in normal traffic, traffic incidents	Reduces travel times up to 16%	Medium–high	2-D

Source: Evaluating Alternative Operations Strategies to Improve Travel Time Reliability SHRP2

Table 6.9. Level 3 Strategies: Delay Reduction of Up to 10%

Category	Strategy	Treatment	Application to Sources of Congestion	Key Quantitative Benefit	Overall Cost Range ^a	Effectiveness–Cost Rank
Information collection and dissemination	Pretrip information	Planned special events management	Special events	Reduces delay caused by special events	Low–medium	3-B
	Real-time information	Freight shipper congestion information, commercial vehicle operations	Traffic-control devices, special events, weather, work zones, traffic incidents	Reduces freight travel time by up to 10% and screening time by up to 50%	Low	3-A
Vehicle technologies	Driver-assistance products	Electronic stability control; obstacle detection systems; lane-departure warning systems; road-departure warning systems	Traffic incidents	Reduces accidents involving vehicles by up to 50%; reduces travel times by 4% to 10%	Low	3-A
Infrastructure improvements and demand optimization	Signal timing, ITS	Traffic-signal pre-emption at grade crossings	Traffic-control devices	Reduces delays by up to 8% at grade crossings, according to simulation models	Medium	3-C

Source: Evaluating Alternative Operations Strategies to Improve Travel Time Reliability SHRP2

Table 6.10. Level 4 Strategies: Other Improvements						
Category	Strategy	Treatment	Application to Sources of Congestion	Key Quantitative Benefit	Overall Cost Range^a	Effectiveness–Cost Rank
Information collection and dissemination	Surveillance and detection	Driver qualification	Traffic incidents	Reduces non-recurring congestion by reducing accidents	Low	4-A
		Automated enforcement	Traffic incidents, bottlenecks	Reduces travel time and improves safety	Variable (high if done by agencies, low if by contractors)	4-D
	Probe vehicles and point detection	GPS, video detection, microwave radar, Bluetooth MAC Readers	Traffic-control devices	No direct benefit to reducing congestion	Low	4-A
Infrastructure improvements and demand optimization	Geometric design treatments	Geometric improvements (interchange, ramp, intersections, narrow lanes, temporary shoulder use)	Physical bottlenecks, traffic incidents	An increase in overall capacity by 7% to 22% from geometric improvements	Medium	4-C
	Variable speed limits	Variable speed limits	Physical bottlenecks, special events	Increases through-put by 3% to 5%	Low–medium	4-B

Source: Evaluating Alternative Operations Strategies to Improve Travel Time Reliability SHRP2

Freight/Economic Development Scoring Criteria

<i>Preserve and Maintain:</i>	<i>5</i>
<i>Support Public Transit:</i>	<i>5</i>
<i>Support Neighborhoods and Communities:</i>	<i>5</i>
<i>Foster a Vibrant Downtown and Central Core:</i>	<i>0</i>
<i>Provide More Transportation Choices:</i>	<i>5</i>
<i>Safety:</i>	<i>5</i>
<i>Support a Diverse Economy with a Reliable Transportation System:</i>	<i>10</i>
<i>Support Quality Job Development:</i>	<i>10</i>
<i>Strengthen Intermodal Connections:</i>	<i>50</i>
<i>Protect Air Quality/Environmental:</i>	<i>5</i>
Total:	100

Preserve and Maintain the Existing System (5 total points)

In order to align the development of the Transportation Improvement Program (TIP) with *Connected2045*, preserving and maintaining the existing transportation system is one of the region's top priorities. By prioritizing preservation of the system, we can reduce the costs of deferred maintenance, improve safety, and foster regional economic growth. While the overarching goal is to ensure the transportation system remains in a good state of repair by managing and maintaining current roadway, bridge, transit, and intermodal assets, sponsors should incorporate other guiding principles from the long-range plan as well. Ideal projects are those that support public transit, promote safety, provide more transportation choices, reduce congestion, or strengthen intermodal connections, in addition to preserving the existing system.

In this section, projects will be assessed in terms of how they contribute to the preservation of existing infrastructure assets. Only projects that propose to replace, rehabilitate, or repair a facility can receive points – projects that propose to construct an entirely new facility will receive zero points.

Road projects:

Pavement condition will be assessed using the Pavement Surface Evaluation and Rating (PASER)¹ Guide, which is a visual rating system. A PASER rating number must be included on the applicable page number of the application and documentation must be provided to show how this rating was determined. PASER ratings range from 1-10, with 1 being 'very poor' condition and 10 being 'excellent' condition. For accurate ratings, the pavement must be rated at locations at a uniform distance. This distance must be no more than ¼-mile for urban areas or ½-mile for rural areas. The distance between rating locations must be included in final calculations of the average rating. Photographs of the pavement at the rating locations are required, as well as a map showing the rating locations. Examples of the types of improvements typically used on roadways with different pavement ratings, as well as their associated scores, are listed below. This is meant to be illustrative, and not an exhaustive list of improvements eligible for funding.

5 points	PASER 2-5 (Poor, Fair) – Includes project elements such as resurfacing, structural improvements such as extensive slab replacement, base repair, or
-----------------	---

¹ Information on PASER available at: <http://www.apa-mi.org/docs/Asphalt-PASERManual.pdf>.

joint rehabilitation. Further deterioration or more severe damage will require more intensive and expensive treatments.

- 4 points** PASER 6-7 (Good) – Includes project elements that are primarily focused on preservative treatments, non-structural surface repairs, routine sealing, and minor patching of pavement to prevent further deterioration.
- 3 points** PASER 1 (Very Poor) – Includes full reconstruction of the facility, regardless of pavement condition. Reconstruction may be due to deterioration or deficient design. Facilities in this condition are assigned a lower priority, to encourage preventive maintenance prior to this level of deterioration.
- 2 points** PASER 8 (Very Good) – Includes standard roadway maintenance.
- Zero points** PASER 9-10 (Excellent) – Includes pavement in new or like-new condition with no maintenance required.

*Documentation required – Attach relevant documentation, including but not limited to: calculations, photos, and/or maps. Points will be assigned only if the project will improve the deficient condition and documentation of the condition is provided with the project application.

OR

Bridge projects:

Bridge conditions will be assessed using the bridge sufficiency rating system approved by FHWA. A bridge sufficiency rating number must be listed on the applicable page number of the application and documentation of this rating must be provided. Bridge sufficiency ratings range from 0-100, with 0 being completely deficient and 100 being a new or entirely sufficient bridge. State DOTs calculate the ratings based on a number of factors including width, vertical clearance, load capacity, essentiality for public use, and structural safety. A copy of the state's bridge inspection report is required. If a bridge inspection report is not available, please contact East-West Gateway staff for assistance.

- 5 points** Bridge sufficiency rating 0-39.9 (very poor)
- 4 points** Bridge sufficiency rating 40-49.9 (poor)
- 3 points** Bridge sufficiency rating 50-59.9 (fair)
- 2 points** Bridge sufficiency rating 60-79.9 (good)

*Documentation required – Attach the state bridge inspection report identifying the sufficiency rating. Points will be assigned only if the project will improve the deficient condition (structural or functional) and documentation of the condition is provided with the project application. For maintenance activities, attach systemic maintenance plan. Preventative maintenance project processes must previously have been reviewed and approved by FHWA (or review is underway).

AND/OR

ITS components:

Up to five (5) points can be earned if the project proposes to preserve ITS components such as signals or traffic sensors. ITS components must be within the project limits and not related to traffic flow performance. *Projects that preserve road or bridge infrastructure **AND** incorporate ITS components will receive the average of the two scores. For example: 5 points for roadway resurfacing + 3 points for signal upgrades = 4 points overall for preservation.*

5 points ITS components are inoperable and need full replacement.

3 points ITS components require repairs, improvements, or upgrades only.

Support Public Transportation (5 total points)

Public transit provides a variety of benefits, including accessible transportation options for all ages and abilities. Under this criterion, five (5) points are awarded if the project intersects or is located within a transit route (including Amtrak and intercity bus service) **AND** includes physical improvements to the transit system. Physical improvements to bus stops include: sidewalks to transit facilities, removing obstructions blocking access to transit facilities, landing pads, appropriate street crossings near transit facilities, lighting, bus shelters, benches, etc. If the project intersects or is located within a transit route (including Amtrak and intercity bus service), and does not include physical improvements to the transit system, two (2) points are assigned. If the project limits is not on a transit route, zero points are assigned. East-West Gateway staff will use Bi-State Development, Madison County Transit, and St. Clair County Transit route data and GIS analysis to determine if the project intersects or is located on a transit route.

5 points Project intersects or located within a transit route **AND** includes physical improvements to transit system.

2 points Project intersects or located within a transit route.

Zero points Project is not on a transit route.

Support Neighborhoods/Communities (5 total points)

This criterion is included to account for projects that are located in Environmental Justice (EJ) areas. This is to ensure that populations that have traditionally been underserved have safe access to community resources and meaningful choices in transportation. East-West Gateway will use minority and low-income household Census data and GIS analysis to determine if the project is located in an EJ area. If the project falls in an EJ area, five (5) points are awarded. If the project is not located in an EJ area, zero points are assigned. A map of the EJ areas is provided below and in Appendix XX.

Furthermore, projects located within environmental justice areas will not earn points if they impose a burden on the population of the area. Burdens may include disruption of community cohesion (i.e., access to schools, parks, medical facilities, and religious institutions), adverse employment effects, decline in tax base or property values, displacements, increased noise

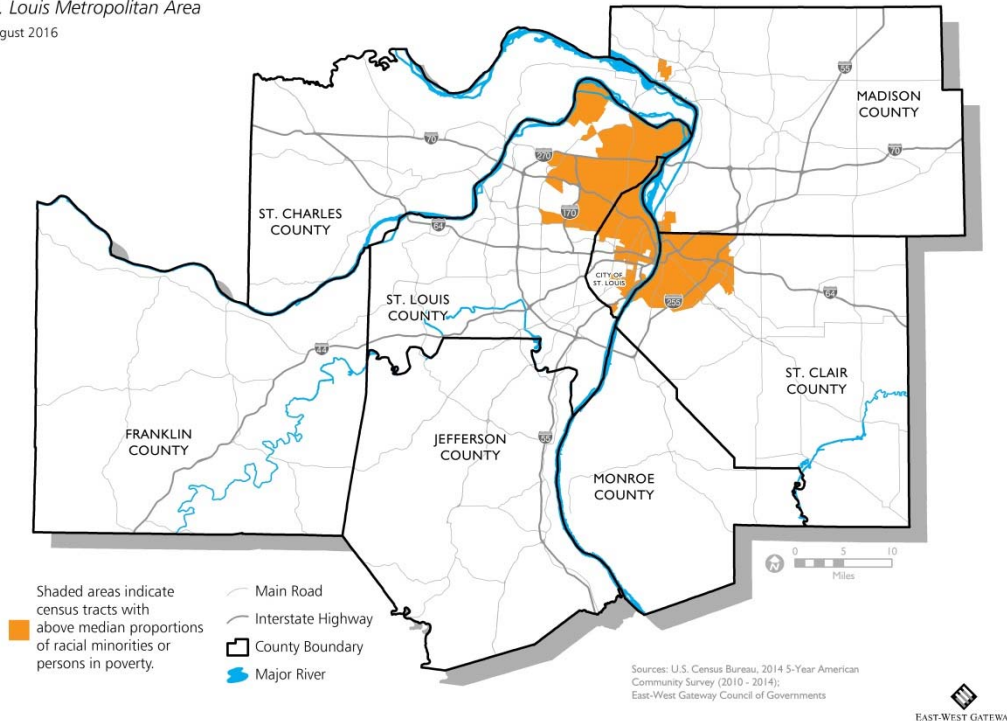
and/or emissions, diminished aesthetics, and disruption to businesses, parking, or access to transit.

5 points Project falls in, or partially in, an EJ tract **AND** does not impose burden.

Zero points Project is not located in an EJ tract.

Environmental Justice Populations by Census Tract

St. Louis Metropolitan Area
August 2016



Provide More Transportation Choices (5 total points)

Per the 2010 USDOT Policy Statement: *Bicycle and Pedestrian Accommodation Regulations and Recommendations*, every transportation agency has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. The USDOT encourages transportation agencies to go beyond the minimum requirements, and proactively provide convenient, safe, and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate. Per the 2013 FHWA Memorandum: *Bicycle and Pedestrian Design Flexibility* and the *Questions & Answers about Design Flexibility for Pedestrian and Bicycle Facilities*, FHWA recommends a flexible approach to pedestrian and bicycle facility design. The AASHTO *Guide for the Planning, Design, and Operation of Pedestrian Facilities* and the AASHTO *Guide for the Development of Bicycle Facilities* are the primary national resources for planning, designing, and operating pedestrian and bicycle facilities. The NACTO *Urban Street Design Guide* and the ITE *Designing Urban Walkable Thoroughfares: A*

Context Sensitive Approach guide builds upon the flexibilities provided in the AASHTO guides and can be used when designing safe and convenient pedestrian and bicycle facilities. The NACTO guide does not supersede compliance with the ADA Standards for Accessible Design, PROWAG, and MUTCD.

For bicycle or pedestrian projects to receive full points, improvements must be context sensitive and appropriate, go beyond minimum standards, and include features that are both safe and comfortable. If the project implements new or improved bicycle or pedestrian facilities that include low-stress features, five (5) points will be awarded. If the project implements medium-stress features, three (3) points will be assigned. If the project implements medium-high stress features, two (2) points will be assigned. If a high-stress facility type is proposed, zero points will be assigned. If bicycle or pedestrian facilities are not included in the project, project sponsors must provide an explanation as to why they are not included. Failure to include bicycle and/or pedestrian facilities may result in the project not being funded.

- 5 points** Low-stress facility proposed.
- 3 points** Medium-stress facility proposed.
- 2 points** Medium-high stress facility proposed.
- Zero points** High-stress facility proposed.

Examples of each stress level are provided below:

Level of Stress		
	Bicycle Examples	Pedestrian Examples
Low-Stress 5 points	Physically separated bikeways, including shared use paths, cycle tracks, and protected bike lanes; bike lanes 6' wide or more; paved shoulders on rural roadways; low volume, mixed-flow traffic at 25 mph or less; and intersections easy to approach and cross.	Sidewalks on one side/both sides of the road (maximum FHWA recommendation met); sidewalks are the appropriate width (i.e., 5' in residential areas and 8' in commercial urban areas); crossing treatments are addressed (i.e., crosswalks/pedestrian signals); appropriate buffers between pedestrians and motor traffic (i.e., parked cars/landscaping/protected bike lanes); traffic calming where warranted (i.e., road diets, lane diets, pedestrian refuge islands, right corner islands); sufficient and appropriate pedestrian lighting; and large sidewalk obstructions are absent in pedestrian though zone (i.e., lighting, utility poles).
Medium-Stress 3 points	Conventional bike lanes next to 30 mph auto traffic.	Sidewalks on one side/both sides of the road (per FHWA recommendation, only the "required" level is met when a "preferred" level is proposed).

Medium-High Stress 2 points	Conventional bike lanes next to 35+ mph auto traffic; and mixed flow traffic at 30 mph.	Sidewalks on one side/both sides of the road (per FHWA recommendation, sidewalks are on one side when FHWA lists two sides as “required”).
High-Stress Zero points	Conventional bike lanes next to traffic speeds 40+ mph; riding in mixed traffic at 35+ mph; “Share the Road” or “Bikes May Use Full Lane” signage where not warranted; conflicts with intersections and driveways along a shared use path; and not addressing barriers in the network.	Long blocks with no mid-block crossings; long pedestrian crossing distances; lacks warranted crossing treatments; pedestrian pushbuttons do not exist at controlled intersections; and lighting/utility obstructions in pedestrian path.

** For applicants proposing bicycle and pedestrian projects, an average of those two scores will be taken.*

** All projects are required to be ADA compliant.*

Promote Safety (5 total points)

As identified in *Connected2045*, East-West Gateway is focusing on lowering the number of fatalities and serious injuries caused by vehicle crashes. To meet this goal, projects should be addressing safety issues in high crash areas or should be using the systemic approach of fixing safety issues across the system where crashes are likely to happen.

Project sponsors can receive points if the project addresses a location with documented crashes as well as locations with undocumented crashes. If the project location has documented crashes, the project crash rate and fatality and serious injury rate will need to be calculated. A project with a higher crash rate and fatality and serious injury rate than the MO/IL regional rate will receive the most points in this category. If the project location does not have a documented problem but is listed in a plan as an area suitable for preventive safety countermeasures, it will be eligible for the minimum points in the safety section. This puts the priority on projects with a documented crash history to help reduce the region’s crash rate. Missouri regional crash rate and an Illinois regional crash rate will be developed; sponsors will use the same formula to calculate the project crash rate.

TRACK ONE: PROJECTS WITH A DOCUMENTED CRASH PROBLEM (5 points):

- 5 points** Project crash rate **AND** the fatality and serious injury rate is equal to or greater than MO/IL regional rates and includes countermeasures
OR
Project intersection crash rate **AND** project fatality and serious injury intersection crash rate is equal to or greater than the IL regional intersection crash rates and includes countermeasures.
- 4 points** Either the project crash rate **OR** the fatality serious injury rate is equal to or greater than MO/IL regional rates and includes countermeasures
OR

Project intersection crash rate **OR** project fatality and serious injury intersection crash rate is equal to or greater than the IL regional intersection crash rates and includes countermeasures.

2 points Project crash rate **AND** the fatality and serious injury rate is less than MO/IL regional crash rate and includes countermeasures
OR
Project intersection crash rate **AND** project fatality and serious injury intersection crash rate is less than the IL regional intersection crash rates and includes countermeasures.

Zero points Project does not address safety.

Conducting the crash rate:

The project crash rate will use the most recent five consecutive calendar years in which data is available. East-West Gateway used MoDOT and IDOT's most recent data to compile the regional crash rate for both Missouri and Illinois. To make sure the project crash rates are being fairly scored against the regional rates, sponsors must use crash data from 2009-2013.

Please note: Sponsors should use the number of fatal and serious injuries crashes and not the total number of fatalities and serious injuries.

To find the project crash rate, use the formula below:

$$\frac{(\text{Number of total crashes}) \times 100,000,000 \text{ vehicle miles traveled}}{(\text{Project Length}) \times (\text{Project Average Daily Traffic}) \times (\text{Number of Crash Years}) \times 365}$$

OR if the project is at an intersection, use the formula below:

$$\frac{(\text{Number of Accidents}) \times 100,000,000 \text{ million entering vehicles}}{(\text{Number of crash years}) \times (\text{Entering AADT}) \times 365 \text{ days/year}}$$

Conducting the fatality and serious injury rate:

The project fatality and serious injury rate will use the most recent five consecutive calendar years in which data is available. East-West Gateway used MoDOT and IDOT's most recent data to compile the fatality and serious injury crash rate for both Missouri and Illinois. To make sure the project fatality and serious injury rates are being fairly scored against the regional fatality and serious injury rates, sponsors must use crash data from 2009-2013. Please note: Sponsor should use the number of fatal and serious injuries crashes not the total number of fatalities and serious injuries.

To find the project fatality and serious injury rate, use the formula below.

$$\frac{(\text{Number of fatal and serious injury crashes}) \times 100,000,000 \text{ vehicle miles traveled}}{(\text{Project Length}) \times (\text{Project Average Daily Traffic}) \times (\text{Number of Crash Years}) \times 365}$$

OR if the project is at an intersection, use the formula below:

$$\frac{(\text{Number of fatal and serious injury crashes}) \times 100,000,000 \text{ million entering vehicles}}{(\text{Number of crash years}) \times (\text{Entering AADT}) \times 365 \text{ days/year}}$$

TRACK TWO: PROJECTS WITHOUT A DOCUMENTED CRASH PROBLEM (2 points):

- 2 points** Project does not have crashes **AND** includes preventative countermeasures to address potential crashes.
- Zero points** Project does not address safety.

To receive points in this category, sponsors must include a safety countermeasure. Sponsors must include the countermeasure's Crash Modification Factor (CMF) detailed sheet* to receive any points in this category. Sponsors must also provide the rates or identify plans as listed below.

Preventative countermeasures:

East-West Gateway understands the importance of being proactive when it comes to transportation safety. A Strategic Highway Safety Plan was created for each county in East-West Gateway's region. These plans look at areas with crash history as well as list countermeasures that can be implemented across the system. Sponsors can also refer to their respective state's Strategic Highway Safety Plan² to find safety countermeasures to apply systemically across their system.

Sponsors will need to provide a safety study, show the countermeasure is listed in a plan, or have a reason behind using the safety countermeasure for this specific project. If a project is using proven safety countermeasures and is listed in a plan or a study has been completed for the project, it will get the full two (2) points.

* To find the CMF go to <http://www.cmfclearinghouse.org>. Sponsors will need to enter in the safety countermeasure and select the CMF that best describes the project. Once the CMF is selected, the sponsor will need to scroll to the bottom and select EXPORT PDF. This PDF must be included with the application. Another resource sponsors may use to find the CMF is Table 5.4 of the Missouri Department of Transportation S-HAL³: Safety Handbook for Locals produced by the University of Missouri. This can be used for both Missouri and Illinois sponsors. Table 5.4 consists of commonly used countermeasures organized alphabetically by general category of the countermeasure. This table does NOT include all countermeasures but may be an easier way to search for possible countermeasures for the project. In the column titled CMF Clearinghouse ID, sponsors will find the ID number for the CMF. Sponsors should type this ID number into the Clearinghouse website to pull up the detailed information sheet. This is the sheet that must be printed and submitted with the application.

² IDOT's Strategic Highway Safety Plan and Highway Safety Plan: <http://www.idot.illinois.gov/transportation-system/transportation-management/planning/SHSP>

MoDOT's Strategic Highway Safety Plan and Highway Safety Plan: <http://www.modot.org/safety/>

County strategic highway safety plan: **Insert link here**

³ S-HAL: http://epg.modot.org/files/3/35/907.5_SHAL.pdf

Support a Diverse Economy with a Reliable Transportation System (10 total points)

The Congestion Management Process (CMP) identifies congestion in the St. Louis region as a result of issues involving capacity constraints, traffic incidents, work zones, weather, traffic control devices, special events and fluctuations in normal traffic. There are two types of congestion, recurring and non-recurring. Recurring congestion occurs daily as the result of inadequate physical road capacity. When congestion is consistent from day to day, road users are able to plan for the impact of that congestion on their trip. Non-recurring congestion occurs on congested roadways that experience an unexpected delay. When there are unexpected delays on roads that are already congested, it significantly impacts traffic flow.

Improving congested roadways can have a significant impact on the movement of people and goods. Congestion impacts the time it takes for travelers to reach their destination as well as the expense associated with making the trip. Both recurring and non-recurring congestion can be mitigated through the use of several strategies identified in the Strategic Highway Research Program's (SHRP2) "Evaluating Alternative Operations Strategies to Improve Travel Time Reliability".

Travel Time Reliability – up to 10 points

Non-recurring congestion on roadways will be assessed using three measures, the Planning Time Index (PTI), Travel Time Index (TTI) and the Volume to Capacity (V/C) ratio. The PTI and TTI are derived from HERE data from the Regional Integrated Transportation Information System (RITIS). The PTI is the total time a traveler should plan for to ensure on-time arrival 95% of the time. The PTI includes the daily delay along a route as well as unexpected delay. The TTI is travel time represented as a percentage of the ideal travel time ($\text{Travel Time} / \text{Free-flow Travel Time}$). The PTI and TTI will only be calculated on roadways for which probe data is available. Therefore, roads with lower functional classifications will be evaluated based on the V/C ratios established in East-West Gateway's travel demand model (TDM) and field observation.

Higher PTI's, TTI's and V/C ratios are indicative of higher levels of congestion. The strategies identified below can be used to mitigate the presence of congestion. These strategies are broken up into four categories Level 1, Level 2, Level 3, and Level 4 Strategies. Each strategy has a proven effect on delay reduction. Please refer to Appendix XX for a list of the strategies, treatments and their impact on travel delay.

Projects will be scored using a two-pronged evaluation. The first part of the evaluation is to determine the PTI and TTI or V/C ratio for the project length. The points assigned to the PTI and TTI will be averaged. The second part of the evaluation is to determine the strategy being applied to address congestion. Projects will be awarded points based on an average of the points assigned for the PTI and TTI or V/C ratio and the level of strategy applied to address the congestion problem. The distribution of points assigned to the PTI, TTI and V/C ratio is provided below.

For example: A project along a major arterial with a PTI of 1.2 and a TTI of 1.75 will receive an average of 10 points and 6 points for implementing a Level 3 Strategy to address the congestion, totaling 16 points. An average of the two scores will be taken for a total score of 8 points.

10 points PTI 2.5 & up

8 points PTI 2.1-2.49

6 points PTI 1.7-2.09

4 points PTI 1.35-1.69

2 points PTI 1.1-1.34

AND

10 points TTI 2.0 & up

8 points TTI 1.75-1.99

6 points TTI 1.5-1.74

4 points TTI 1.25-1.49

2 points 1.0-1.24

OR

10 points V/C 1.1 & up

8 points V/C 0.96-1.0

6 points V/C 0.85-0.95

4 points V/C 0.7-0.84

AND

10 points Level 1 and Level 2 Strategy

6 points Level 3 Strategy

4 points Level 4 Strategy

Support Quality Job Development (10 total points)

TRACK ONE: FREIGHT

The *OnTheMap* tool is derived from Census data and will be used to assess where workers are employed in the region. Employment density or jobs per census block will be used as a measure in determining how important improvements to transportation facilities are in the surrounding area. Each project will be assessed points based on its county location and number of jobs per sq. mile. Up to ten (10) points will be awarded based on the distribution in the *OnTheMap* tool at a county level.

10 points	High Jobs/Sq. Mile
8 points	Medium-High Jobs/Sq. Mile
6 points	Medium Jobs/Sq. Mile
4 point	Medium-Low Jobs/Sq. Mile
Zero points	Low Jobs/Sq. Mile

TRACK TWO: ECONOMIC DEVELOPMENT

Project sponsors must provide the expected number of full-time direct jobs the new development will create. The number of full-time direct jobs will be used to determine a ratio of estimated jobs by project cost. Under this criterion, the average income of the development industry type will be multiplied by the number of full-time direct jobs created and then divided by the project cost.

Projects will be awarded points if they support the creation of new full-time direct employment. Points will be assigned to projects based on the following formula and scale:

$$\frac{\text{Average income by development industry type X number of jobs created}}{\text{Project cost}}$$

10 points	8.1 to 10
8 points	6.1 to 8
6 points	4.1 to 6
4 point	2.1 to 4
Zero points	0 to 2

Strengthen Intermodal Connections (50 total points)

TRACK ONE: FREIGHT (50 points):

The Fixing America's Surface Transportation Act (FAST Act) repealed both the Primary Freight Network and National Freight Network from Moving Ahead for Progress in the 21st Century Act (MAP-21), and directed the FHWA Administrator to establish a National Highway Freight Network (NHFN, http://ops.fhwa.dot.gov/freight/infrastructure/nfn/maps/nhfn_map.htm) to strategically direct Federal resources and policies toward improved performance of highway portions of the U.S. freight transportation system. Scoring criteria within this section looks to address connections/improvements to the NHFN, as well as local freight planning initiatives.

Future growth in the regional freight economy will depend on strengthening our multi-modal connections to industrial sites throughout the region, while also improving first and last mile connections to intermodal freight facilities, major freight generators, logistic centers, and/or manufacturing and warehouse industrial land. Projects will receive points based on how well they impact multiple modes of the freight transportation network.

Project located within one of 23 key Industrial Site Areas, connects to a critical urban freight corridor (CUFC), connects to a critical rural freight corridor (CRFC), connects to the Primary Highway Freight System (PHFS) **AND** connects to an intermodal freight facility, serves a major freight generator, logistic center, manufacturing and warehouse industrial land, or navigable waterway or Port District. A map of the 23 key industrial site areas as well as the Primary Highway Freight System is provided in below and in Appendix XX.

Fifty (50) points will be assigned to projects that meet both of the following criteria:

1. Projects must be located in one of the following:
 - a. Project located within one of the 23 **Industrial Site Areas (ISA's)**, as identified in the 2014 St. Louis Regional Freight Study commissioned by East-West Gateway (<http://www.ewgateway.org/freight/freight.htm>);
 - b. Project is recognized as a **Critical Urban Freight Corridor (CUFC)**, as identified by EWGCOG. These are public roads in urbanized areas which provide access and connection to the PHFS and the Interstate with other ports, public transportation facilities, or other intermodal transportation facilities.
 - c. Project is recognized as a **Critical Rural Freight Corridor (CRFC)** as identified by the EWGCOG. These are public roads not in an urbanized area which provide access and connection to the PHFS and the Interstate with other important ports, public transportation facilities, or other intermodal freight facilities.
 - d. Project connects to the **Primary Highway Freight System (PHFS)**; <http://ops.fhwa.dot.gov/freight/infrastructure/nfn/index.htm>

AND

2. Project connects to an intermodal freight facility, serves a major freight generator, logistic center, manufacturing and warehouse industrial facilities, navigable waterway or Port District.

- a. Intermodal Connectors for Missouri
(http://www.fhwa.dot.gov/planning/national_highway_system/intermodal_connectors/missouri.cfm);
- b. Intermodal Connectors for Illinois
(http://www.fhwa.dot.gov/planning/national_highway_system/intermodal_connectors/illinois.cfm);

Thirty-five (35) points will be assigned to projects that meet at least one of the following:

1. Project located within one of the 23 ISA's
2. Project connects to a Critical Urban Freight Corridor (CUFC)
3. Project connects to a Critical Rural Freight Corridor (CRFC)
4. Project connects to the Primary Highway Freight System (PHFS)
5. Project connects to an intermodal freight facility, serves a major freight generator, logistic center, manufacturing and warehouse industrial land, or navigable waterway or Port District.

Additional Resources:

National Highway Freight Network Map and Tables for Missouri:

http://ops.fhwa.dot.gov/freight/infrastructure/ismt/state_maps/states/missouri.htm

National Highway Freight Network Map and Tables for Illinois

http://ops.fhwa.dot.gov/freight/infrastructure/ismt/state_maps/states/illinois.htm

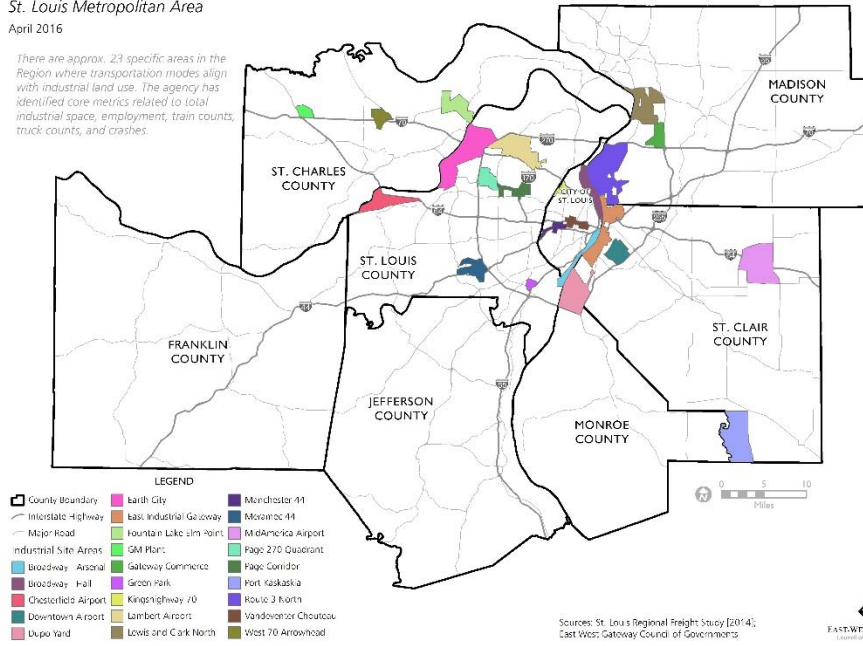
Please note: CUFC's and CRFC's are currently under development. States and in certain cases, Metropolitan Planning Organizations (MPOs), are responsible for designating public roads for the CRFCs and CUFCs in accordance with section 1116 of the FAST Act. State designation of the CRFCs is limited to a maximum of 150 miles of highway or 20 percent of the PHFS mileage in the State, whichever is greater. State and MPO designation of the CUFC is limited to a maximum of 75 miles of highway or 10 percent of the PHFS mileage in the State, whichever is greater. Guidance in accordance with the FAST Act section 1116 will be developed to provide information on the identification, designation, and certification of these corridors.

Industrial Site Areas

St. Louis Metropolitan Area

April 2016

There are approx. 23 specific areas in the Region where transportation modes align with industrial land use. The agency has identified core metrics related to total industrial space, employment, train counts, truck counts, and crashes.

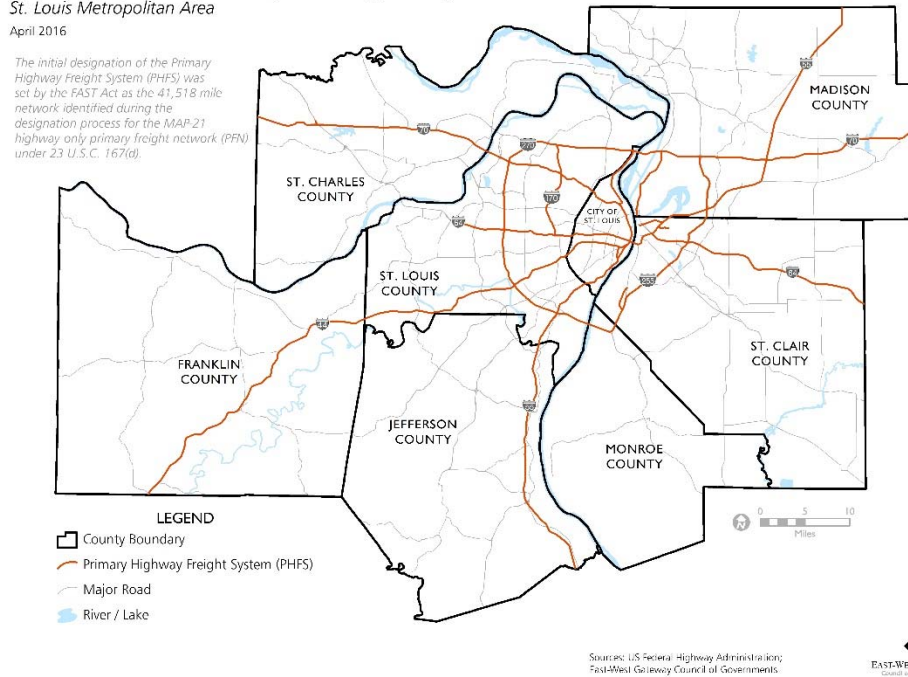


Primary Highway Freight System

St. Louis Metropolitan Area

April 2016

The initial designation of the Primary Highway Freight System (PHFS) was set by the FAST Act as the 41,518 mile network identified during the designation process for the MAP-21 highway only primary freight network (PHN) under 23 U.S.C. 167(d).



TRACK TWO: ECONOMIC DEVELOPMENT (50 points):

Transportation connectivity is a major contributing factor to the performance and competitiveness of industries. In addition to maximizing economic benefits and creating jobs, accessible transportation facilities contribute to a reduction of costs borne by producers and consumers. Additionally, performance of the transportation system is a key factor in the region's ability to maintain and attract economic activity.

Projects will be evaluated based on how well they support the development of high quality industries within the region through improved transportation access.

Direct transportation linkages:

Projects will receive up to 50 points (**based on the distribution in Table 1**) if the project provides a direct transportation linkage for the redevelopment of underutilized properties or industrial sites*, a business expansion or planned industrial development. These transportation linkages must provide direct connections to the development site.

“Direct Transportation Linkage” is defined as an eligible publicly-owned and-maintained transportation facility from the entrance of the development site to a public road. The transportation linkage may require constructing a new facility, improving an existing facility, or a combination of both. Projects that do not directly connect to the development site will not receive points in this category. Documentation must be provided to establish the nature, size, and schedule for the proposed development.

*Underutilized Properties or Industrial sites are properties that are appropriate for freight related land uses due to their size, location, or transportation accessibility, but are not currently generating significant economic benefits or productivity.

Projects that provide direct transportation linkages to business developments will be assigned points based on the relationship between the average income of the industry being supported and the average income of all industries (See Table 1).

Table 1	
Criteria	Points
Greater than the average income of all industries	50
Same as the average income of all industries	40
$\frac{3}{4}$ of the average income of all industries	30
$\frac{1}{2}$ of the average income of all industries	20
$\frac{1}{4}$ of the average income of all industries	10

Projects will receive 50 points if the project provides a direct transportation linkage to a redevelopment, business expansion, or planned industrial development with an average industry income that is greater than the average income of all industries.

Projects will receive 40 points if the project provides a direct transportation linkage to a redevelopment, business expansion, or planned development with an average industry income that is the same as the average income of all industries.

Projects will receive 30 points if the project provides a direct transportation linkage to a redevelopment, business expansion, or planned development with an average industry income that is $\frac{3}{4}$ of the average income of all industries.

Projects will receive 20 points if the project provides a direct transportation linkage to a redevelopment, business expansion, or planned development with an average industry income that is $\frac{1}{2}$ of the average income of all industries.

Projects will receive 10 points if the project provides a direct transportation linkage to a redevelopment, business expansion, or planned development with an average industry income that is $\frac{1}{4}$ of the average income of all industries.

Air Quality/Environment (5 total points)

Green infrastructure is a design approach to managing stormwater, the urban heat island effect, public health, and air quality. Sustainable stormwater management treats and slows runoff from impervious roadways, sidewalks, and building surfaces. Examples of green infrastructure include bioswales, rain gardens, pervious strips, pervious pavement, and green bulb-outs. If the proposed project includes green infrastructure, five (5) points are awarded. If the project does not provide any green infrastructure, zero points are assigned.

5 points Project includes green infrastructure elements.

Zero points Project does not include green infrastructure.

Active Transportation Scoring Criteria

<i>Preserve and Maintain: 5</i>
<i>Support Public Transit: 5</i>
<i>Support Neighborhoods and Communities: 15</i>
<i>Foster a Vibrant Downtown and Central Core: 10</i>
<i><u>Provide More Transportation Choices: 27</u></i>
<i><u>Safety: 35</u></i>
<i>Protect Air Quality/Environmental: 3</i>
Total: 100

Preserve and Maintain the Existing System (5 total points)

EXISTING BICYCLE FACILITIES:

The St. Louis Region has invested in a network of bicycle facilities throughout the years. At the same time, bicycle guidelines and standards have been updated to accommodate bicycle travel and operations. Project sponsors are highly encouraged to design facilities that meet or exceed the most updated standards and recommendations from AASHTO, NACTO, ITE, and MUTCD-accepted treatments. Compliance with national standards and guidelines will ensure uniformity and safety in bicycle facility design. Five (5) points are awarded if the project improves existing bicycle facilities to include both safe and comfortable, low-stress facilities. Refer to page 7 for a description on low-stress facilities. The attempt to enhance bicycle transportation should be deliberate and a direct result of the project. If there is no existing bicycle facility, or the proposed project does not upgrade the existing facility, zero points are assigned.

5 points Project improves existing bicycle facility to include both safe and comfortable, low stress facilities.

Zero points No existing facility OR proposed project does not upgrade facility.

EXISTING PEDESTRIAN FACILITIES:

Existing sidewalks can create accessibility issues if the surface is deteriorated. For projects that are replacing existing sidewalks, the sponsor is required to evaluate the current sidewalk conditions using the Pavement Serviceability Rating (PSR). The PSR rates the “quality” of the sidewalk ranging from zero (0) to five (5). Refer to Appendix XX for a description and photograph examples of each rating.

- 0:** Totally deteriorated or nonexistent
- 1:** Poor condition
- 2:** Below average to average condition
- 3:** Good to above average condition
- 4:** Very good condition
- 5:** Brand new or excellent condition

Conducting the PSR:

Due to the subjective nature of condition assessment, it is recommended that a team independently rates each sidewalk, and then reveals and explains their rating to each other. The

evaluation locations must be made at a uniform distance. Each side of the block should be evaluated and then combined for a final rating. After negotiating a rating, the final PSR is assigned. Pictures should be taken to document each location evaluated. A map showing the evaluation locations and the pictures should be included with the application.

The PSR should be conducted for the portions of the sidewalk that will be upgraded. **Note:** If both sides of the sidewalk are non-ADA compliant, the sponsor must upgrade both sides of the sidewalk.

Sidewalks with an average PSR of 0-1 will receive five (5) points. Three (3) points will be assigned to sidewalks with an average PSR of 1-2. Two (2) points will be assigned to sidewalks with an average PSR of 2-3. Zero points are assigned if the sidewalk has an average PSR rating greater than 3.

5 points	Average PSR 0-1 (totally deteriorated)
3 points	Average PSR 1-2 (poor condition)
2 points	Average PSR 2-3 (fair condition)
Zero points	Average PSR 3+ (good condition)

** For applicants proposing bicycle and pedestrian improvements, an average of the two scores will be taken.*

Support Public Transportation (5 total points)

Bicycling and walking are complementary to transit. The Gateway Bike Plan states, “Targeting the provision of safe and convenient bicycle facilities such as lanes, trails, and bicycle parking can increase the service radius of a transit stop.” In addition, bus stops that have access via sidewalks and appropriate street crossing locations ensure personal safety for pedestrians who use transit. Under this criterion, five (5) points are awarded if the project includes physical improvements to the transit system. Physical improvements to bus stop include: sidewalks to transit facilities, removing obstructions blocking access to transit facilities, landing pads, appropriate street crossings near transit facilities, lighting, bus shelters, benches, etc.

FTA determined in a 2011 policy statement that all pedestrian improvements located within ½-mile and all bicycle improvements located within 3-miles of a public transportation stop or station shall have a de facto physical and functional relationship to public transportation. If the pedestrian project is located within a ½-mile of a bus stop, transfer center, or station, or bicycle project is located within 3-miles of a bus stop, transfer center, or station, and does not include physical improvements to the transit system, two (2) points are assigned. If the project does not include physical improvements to the transit system and does not have a functional relationship to public transportation, zero points are assigned.

- 5 points** Project includes physical improvements to transit system.
- 2 points** Pedestrian project is within a ½-mile of a bus stop, transfer center, or station, or bicycle project is within 3-miles of a bus stop, transfer center, or station.
- Zero points** Project does not include physical improvements to the transit system and does not have a functional relationship to public transportation.

Support Neighborhoods/Communities (15 total points)

ENVIRONMENTAL JUSTICE (6 points):

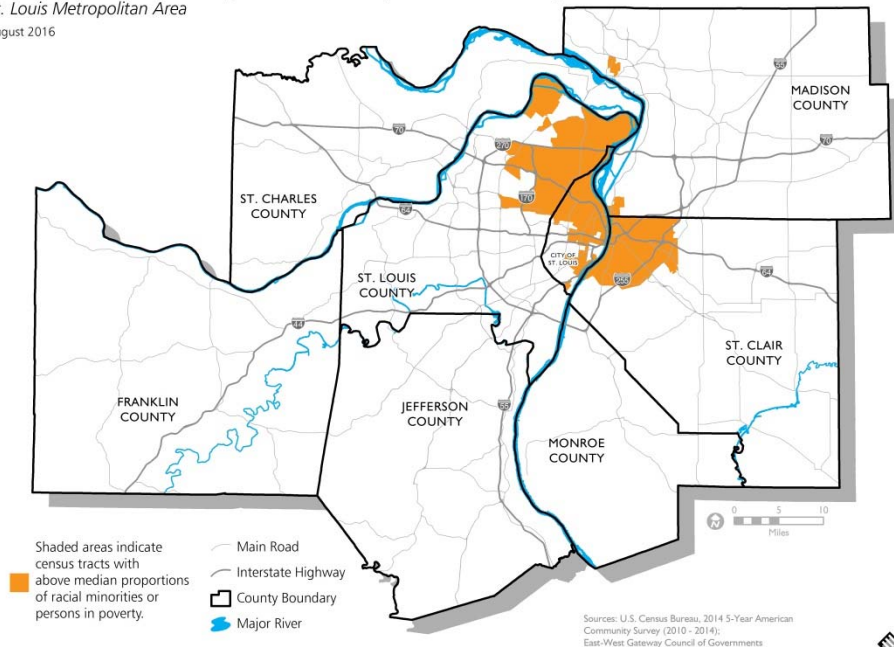
This criterion is included to account for projects that are located in Environmental Justice (EJ) areas. This is to ensure that populations that have traditionally been underserved have safe access to community resources and meaningful choices in transportation. East-West Gateway will use minority and low-income household Census data and GIS analysis to determine if the project is located in an EJ area. If the project falls in an EJ area, six (6) points are awarded. If the project is not located in an EJ area, zero points are assigned. A map of the EJ areas is provided below and in Appendix XX.

- 6 points** Project falls in, or partially in, an EJ tract.

- Zero points** Project is not located in an EJ tract.

Environmental Justice Populations by Census Tract

St. Louis Metropolitan Area
August 2016



SUPPORTING SCHOOL ACCESS (4 points):

Developing safe and convenient bicycle and pedestrian facilities around schools encourage students to walk and bike, allowing them to incorporate daily physical activity into their lives, while also reducing traffic congestion and improving neighborhood connections. If the project provides improved direct access to school(s), four (4) points will be awarded. If the project is within ½-mile of a school, two (2) points are assigned. If there are no schools located within a ½-mile of the proposed project, zero points will be assigned. The project applicant must provide the information on the project location map

4 points Project provides direct access to a school within right-of-way.

2 points Project is within ½-mile of a school.

Zero points Project is not within a ½-mile of a school.

SUPPORTING ACCESS TO COMMUNITY RESOURCES (2 points):

Transportation investments that connect residents to local community resources can have a profound impact on public health. If the project provides direct access to community resources, such as libraries, hospitals, community centers, YMCAs/gyms, or parks, up to two (2) points will be awarded. If the project does not provide direct access to community resources, zero points will be assigned. The project applicant must provide the information on the project location map.

2 points Project provides direct access to community resources within right-of-way.

Zero points Project does not provide direct access to community resources.

REGIONAL PLANNING DOCUMENTS/PLANNING PROCESS (3 points):

This criterion is included in the evaluation process to identify and add significance to roadway segments or trail corridors if the improvement is identified in a locally adopted plan. Applicants are asked to cite any City Council or Board adopted plan with which the proposed project is consistent or that specifically includes the proposed project. Applicants are asked to submit the page(s) from the plan to show consistency. Three (3) points are awarded if the improvement is cited as a priority in the adopted plan. One (1) point is assigned if the project is generally defined in an adopted plan, ordinance, or policy. Zero points are assigned if there is no planning documentation provided to support project.

3 points Project is specifically prioritized in a planning document, such as Bicycle/Pedestrian Plan, Community Plan, Corridor Plan, Bicycle/Pedestrian Safety Plan, etc.

1 point Project is generally defined in a planning document; Complete Streets ordinance or policy.

Zero points No planning documentation provided to support project.

Foster a Vibrant Downtown and Central Core (10 total points)

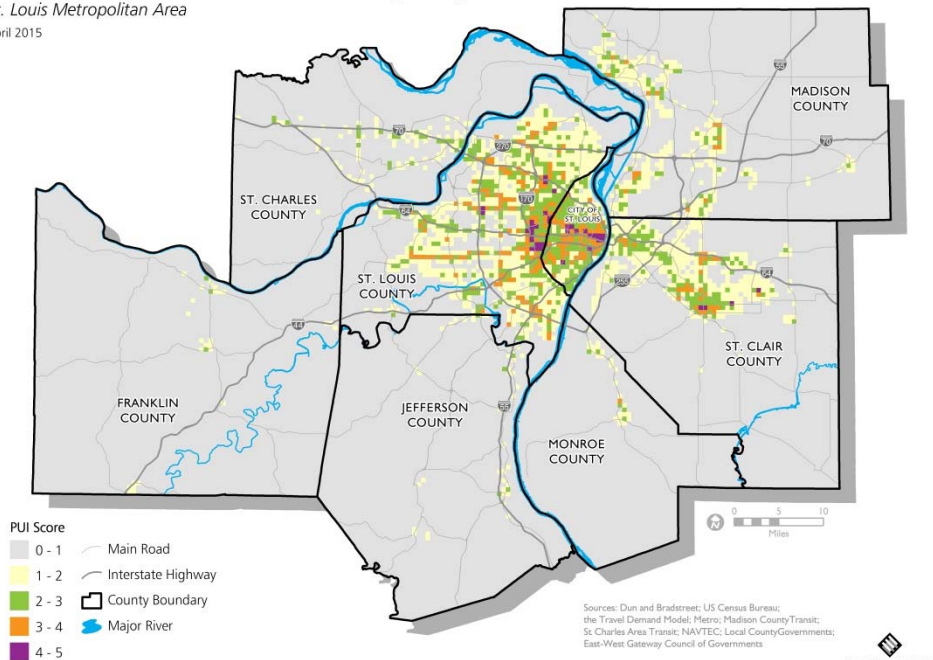
A strategy identified in the long-range transportation plan, *Connected2045*, to 'Foster a Vibrant Downtown and Central Core' is to develop multi-modal linkages to surrounding neighborhoods. Biking and walking networks can have a positive economic impact on the Region by generating tourism and supporting businesses. East-West Gateway will evaluate biking and walking projects that are in areas that have bike- and pedestrian-supportive densities and land uses, as well as access to transit.

East-West Gateway will use a weighted land use data set (employment, retail, and population) and a weighted transit score to create a Project Utilization Index (PUI). The PUI¹ represents a composite index of land use and transit, where land use is weighted at 60% and transit is weighted at 40%. The PUI is the criterion for evaluating anticipated demand for active transportation, using a ½-mile for pedestrian projects and a one-mile buffer for bicycle projects. A map of the PUI is provided in below and in Appendix XX.

- 10 points** Average score of 3 or greater
- 6 points** Average score of 2-3
- 2 points** Average score of 1-2

Project Utilization Index (PUI)

St. Louis Metropolitan Area
April 2015



¹ Development of Project Utilization Index: <http://bit.ly/1mvYGG>

Provide More Transportation Choices (27 total points)

System connectivity is a factor related to linking or connecting existing bicycle or pedestrian facilities to complete the regional network. If a project fills in an important missing gap (links both ends) or connects to more than one existing facility, twenty-seven (27) points are awarded. If the project extends the limits of an existing network of pedestrian and/or bicycle facilities (connects on one end or intersects), seventeen (17) points are assigned. If the project builds a new isolated bicycle and/or pedestrian facility, seven (7) points for connectivity are assigned. The project applicant must provide the information on the project location map, including existing facilities and the proposed segment.

- | | |
|------------------|--|
| 27 points | Fills in missing gap. |
| 17 points | Connects on one end (i.e., extends or intersects). |
| 7 points | New, isolated facility. |

Promote Safety (35 total points)

BICYCLE AND PEDESTRIAN CRASHES (2 points):

If the project corridor has locations with bicycle-involved or pedestrian-involved crashes over five years, and the project addresses the safety issue with the appropriate countermeasure(s), two (2) points will be awarded. If there is a documented safety issue, applicants must provide the police report for each crash involving a bicyclist and/or pedestrian. If there are no bicycle-involved or pedestrian-involved crashes, zero points are assigned.

- | | |
|--------------------|--|
| 2 points | Project corridor has locations with bicycle-involved or pedestrian-involved crashes over five years AND project addresses the safety issues with the appropriate countermeasure(s). |
| Zero points | There are no bicycle-involved or pedestrian-involved crashes along project corridor. |

BICYCLE AND PEDESTRIAN STRESS LEVEL (33 points):

Low-stress bicycle and pedestrian facilities attract bicyclists and pedestrians because they are safe, comfortable, and convenient routes². In many cases, low-stress bicycle facilities create low-stress pedestrian facilities due to the traffic calming design³. Examples of low-stress facilities include shared-use paths, cycle tracks, buffered or protected bike lanes, calm streets, high-visibility crosswalks, and road diets. The functional class of the roadway (local, collector, or arterial) also impacts stress level. For instance, bike lanes and shared-lane markings can go from

² Mineta Transportation Institute "Low-Stress Bicycling and Network Connectivity" Report, May 2012: <http://transweb.sjsu.edu/PDFs/research/1005-low-stress-bicycling-network-connectivity.pdf>.

³ Trailnet "Streets for Everyone:" <http://trailnet.org/2014/05/07/streets-everyone-guide/>.

low-stress to high-stress depending on the functional class of the roadway (i.e., speed, ADT). In addition, the context zones (rural, suburban, general urban, urban center, and urban core) play an important role when implementing the appropriate low-stress facility.

Per the 2010 USDOT Policy Statement: *Bicycle and Pedestrian Accommodation Regulations and Recommendations*, every transportation agency has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. The USDOT encourages transportation agencies to go beyond the minimum requirements, and proactively provide convenient, safe, and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate. Per the 2013 FHWA Memorandum: *Bicycle and Pedestrian Design Flexibility* and the *Questions & Answers about Design Flexibility for Pedestrian and Bicycle Facilities*, FHWA recommends a flexible approach to pedestrian and bicycle facility design. The AASHTO *Guide for the Planning, Design, and Operation of Pedestrian Facilities* and the AASHTO *Guide for the Development of Bicycle Facilities* are the primary national resources for planning, designing, and operating pedestrian and bicycle facilities. The NACTO *Urban Street Design Guide* and the ITE *Designing Urban Walkable Thoroughfares: A Context Sensitive Approach* guide builds upon the flexibilities provided in the AASHTO guides and can be used when designing safe and convenient pedestrian and bicycle facilities. The NACTO guide does not supersede compliance with the ADA Standards for Accessible Design, PROWAG, and MUTCD.

The stress level is assigned based on the lowest-performing attribute. Even if the project is mostly low-stress, the occurrence of one high-stress attribute dictates the stress level for the link.

Low-Stress:

Low-stress facilities are suitable for the mainstream adult population, the “interested, but concerned.” Since the majority of people fall under this category, there is a need for a variety of facility types to accommodate this population. These projects go beyond bare minimums and exceed the most updated standards and recommendations from AASHTO, NACTO, and ITE. Proposed bicycle and pedestrian facilities with low-stress will be awarded thirty-three (33) points.

Medium-Stress and Medium-High Stress:

Facilities with a *medium-stress* are tolerated by bicyclists who are “enthused and confident,” but still prefer having their own dedicated space for riding. Medium-stress pedestrian facilities have bare minimum designs and amenities and only meet the most updated standards and recommendations from AASHTO, NACTO, and ITE. When facilities with a medium-stress are proposed, twenty-two (22) points will be assigned. Facilities with a *medium-high stress* will be assigned eleven (11) points.

High-Stress:

High-stress facilities often function as a barrier to bicyclists and are tolerated by those characterized as “strong and fearless.” For pedestrian facilities, a high-stress facility excludes critical design features that enhance safety. If high stress facility types are proposed, zero points are assigned.

- 33 points** Low-stress facility proposed.
- 22 points** Medium-stress facility proposed.
- 11 points** Medium-high stress facility proposed.
- Zero points** High-stress facility proposed.

Examples of each stress level are provided below:

Level of Stress		
	Bicycle Examples	Pedestrian Examples
Low-Stress 33 points	Physically separated bikeways, including shared use paths, cycle tracks, and protected bike lanes 6' wide or more; low volume, mixed-flow traffic at 25 mph or less; and intersections easy to approach and cross.	Sidewalks on one side/both sides of the road (maximum FHWA recommendation met); sidewalks are the appropriate width (i.e., 5' in residential areas and 8' in commercial urban areas); crossing treatments are addressed (i.e., crosswalks/pedestrian signals); appropriate buffers between pedestrians and motor traffic (i.e., parked cars/landscaping/protected bike lanes); traffic calming where warranted (i.e., road diets, pedestrian refuge islands, right corner islands); sufficient and appropriate pedestrian lighting; and large sidewalk obstructions are absent in pedestrian through zone (i.e., lighting, utility poles).
Medium-Stress 22 points	Conventional bike lanes next to 30 mph auto traffic.	Sidewalks on one side/both sides of the road (per FHWA recommendation, only the "required" level is met when a "preferred" level is proposed).
Medium-High Stress 11 points	Conventional bike lanes next to 35+ mph auto traffic; and mixed flow traffic at 30 mph.	Sidewalks on one side/both sides of the road (per FHWA recommendation, sidewalks are on one side when FHWA lists two sides as "required").
High-Stress Zero points	Conventional bike lanes next to traffic speeds 40+ mph; riding in mixed traffic at 35+ mph; "Share the Road" or "Bikes May Use Full Lane" signage where not warranted; conflicts with intersections and driveways along a shared use path; and not addressing barriers in the network.	Long blocks with no mid-block crossings; long pedestrian crossing distances; lacks warranted crossing treatments; pedestrian pushbuttons do not exist at controlled intersections; and lighting/utility obstructions in pedestrian path.

** For applicants proposing bicycle and pedestrian projects, an average of those two scores will be taken.*

** For applicants proposing to construct facilities on multiple streets, EWG will perform a weighted assessment based on the type of improvements proposed.*

** All projects are required to be ADA compliant.*

Air Quality/Environment (3 total points)

Green infrastructure is a design approach to managing stormwater, the urban heat island effect, public health, and air quality. Sustainable stormwater management treats and slows runoff from impervious roadways, sidewalks, and building surfaces. Examples of green infrastructure include bioswales, rain gardens, pervious strips, pervious pavement, and green bulb-outs. If the proposed project includes green infrastructure, three (3) points are awarded. If the project does not provide any green infrastructure, zero points are assigned.

- 3 points** Project includes green infrastructure.

- Zero points** Project does not include green infrastructure.

Resources:

<http://www.pedbikesafe.org/PEDSAFE/index.cfm>
<http://transweb.sjsu.edu/PDFs/research/1005-low-stress-bicycling-network-connectivity.pdf>
http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/sidewalks204.cfm
https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/mutcd/
<http://trailnet.org/2014/05/07/streets-everyone-guide/>

List of Acronyms:

AASHTO	American Association of State and Highway Transportation Officials
ADA	Americans with Disabilities Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
ITE	Institute of Transportation Engineers
MUTCD	Manual on Uniform Traffic Control Devices
NACTO	National Association of City Transportation Officials
PROWAG	Public Rights-Of-Way Accessibility Guidelines
USDOT	United States Department of Transportation

Transit Scoring Criteria

Support Public Transit: 50
Support Neighborhoods/Communities: 15
Provide More Transportation Choices: 10
Safety and Security: 5
Support a Diverse Economy with a Reliable Transportation System: 5
Support Quality Job Development: 5
Protect Air Quality/Environmental: 10

Total: 100

Support Public Transportation (50 total points)

TRACK ONE: REHAB/REFURBISHMENT/FULL REPLACEMENT (50 points):

Impact to system:

In order to align the development of the Transportation Improvement Program (TIP) with *Connected2045*, preserving and maintaining the existing transportation system is the one of the region’s top priorities. By prioritizing preservation of the system, we can reduce the costs of deferred maintenance, improve safety, and foster regional economic growth. While the overarching goal is to ensure the transportation system remains in a good state of repair by managing and maintaining current roadway, bridge, transit, and intermodal assets, sponsors should incorporate other guiding principles from the long-range plan as well. Ideal projects are those that support public transit, promote safety, provide more transportation choices, reduce congestion, or strengthen intermodal connections, in addition to preserving the existing system.

In this section, projects will be assessed in terms of how they contribute to the preservation of existing transit assets. Only projects that propose to replace, rehabilitate, or repair a can receive points.

Project must meet Useful Life of Public Property criteria in FTA Circular 5010.1d. Projects that do not meet useful life or mileage criteria at time of application must provide documentation showing that they will meet the useful life or mileage by the fiscal year federal funds are programmed or document that an unforeseen circumstance or emergent need to repair, replace or refurbish an asset as permitted by FTA. Examples of project useful life are below:

Project Type	Minimum Useful Life (Years)	Minimum Accumulation of Mileage
Facility (contact EWG staff)	40	n/a
Rail (streetcar or other light rail) – replacement or refurbishment	25	n/a
Large, Heavy Duty Buses (approx. 35-40’) and articulated buses	12	500,000
Small size, heavy duty transit buses (approx. 30’)	10	350,000
Medium size, medium duty transit buses (approx. 25-35’)	7	200,000
Medium size, light duty transit buses (approx. 25-35’)	5	150,000

Other light duty vehicles (revenue service) such as regular or specialized vans, and sedans	4	100,000
---	---	---------

Projects will be awarded points based on the following scale:

- 20 points** Urgent: need to repair/replace/refurbish asset(s) urgently, either because of unforeseen circumstances or emergent need to address
- 15 points** Normal: replacing the asset as part of regularly planned preventative maintenance (i.e. project meets or exceeds its useful life).
- 5 points** Long-Range: rehabilitation to prolong the asset’s useful life.
- Zero points** Vehicle does not meet useful life when funding is available.

AND

Impact to ridership:

The rehabilitation, refurbishment, or replacement of vehicles and/or fixed transit facilities has a direct impact on maintaining the existing transit ridership base. Passengers are impacted by on-time performance and asset (e.g. vehicles, fixed transit facility) availability on the transit system. Transit ridership is a reflection of vehicle condition, scheduling/operations, and access. Projects must demonstrate that failure to rehab, refurbish, or replace an asset will negatively impact ridership by documenting inadequate asset availability and the related delays on routes. Under this category, projects that are necessary to maintain existing ridership will receive 30 points. Projects that do not cause a decrease in existing ridership will receive zero points.

"Fixed Transit Facility" is defined as an eligible facility that is required to support the operation of transit service such as transfer centers, maintenance garages, park and ride lots, light rail tracks, and bridge tunnels.

- 30 points** Rehabilitation, refurbishment, or replacement of asset(s) is necessary to maintain existing ridership.
- Zero points** Failure to rehabilitate, refurbish, or replace asset(s) will not cause decrease in existing ridership.

TRACK TWO: SYSTEM EXPANSION (50 points):

Frequency/headway (additional capacity):

Expansion of the transit system or improving frequency can help to increase annual transit boardings system-wide. It has been documented that a one percent increase in service corresponds to a 0.5% increase in ridership¹.

Project sponsor must commit to maintaining existing transit service and operating additional service in the future.

- | | |
|--------------------|--|
| 50 points | Project provides 2.5% or higher increase in ridership along route. |
| 40 points | Project provides 2-2.5% or higher increase in ridership along route. |
| 30 points | Project provides 1.5% -2% or higher increase in ridership along route. |
| 20 points | Project provides 1%-1.5% or higher increase in ridership along route. |
| 10 points | Project provides 0.5%-1% or higher increase in ridership along route. |
| Zero points | Project provides less than 0.5% increase in ridership along route. |

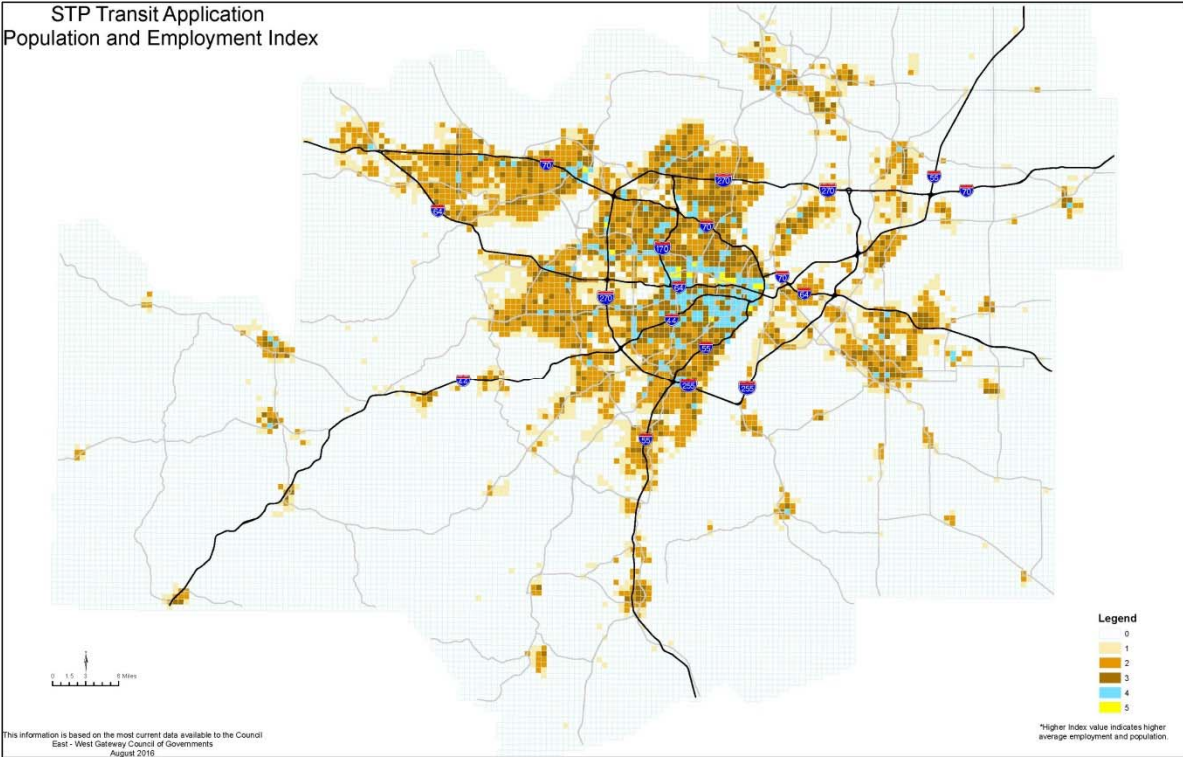
OR

New route/geographic expansion:

Population and employment are indicators of the potential for successful transit service. Potential ridership will be measured by population and employment. Population and employment are indexed on the map on the next page on a scale of 0-5 with 5 being the highest. Points will be assigned based on the average score of a buffer within 0.5 miles of a non-express bus route and a buffer within 1 mile of an express bus stop.

- | | |
|--------------------|--|
| 50 points | Average Population/Employment Index of 5 |
| 40 points | Average Population/Employment Index of 4 |
| 30 points | Average Population/Employment Index of 3 |
| 20 points | Average Population/Employment Index of 2 |
| 10 points | Average Population/Employment Index of 1 |
| Zero points | Average Population/Employment Index of 0 |

¹ Traveler Response to Transportation Changes Handbook, Third Edition:
<http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=1034>



TRACK THREE: NEW OR IMPROVED TRANSIT FACILITIES (25 points):

Bus stop/station improvements:

Infrastructure limitations prevent individuals from accessing transportation options. Limitations such as reliability, lack of benches/weather protection at bus stops, and inadequate signage and lighting all impact the user of transit. Points are assigned based on the number of the proposed improvements to the transit network. Improvements to transit accessibility include, but are not limited to the following: real-time information, benches, shelters, signage, and lighting.

- 25 points** Accessibility improvements along 20 bus stops or more or makes improvement to MetroLink Station.
- 15 points** Accessibility improvements along 10-20 stops.
- 5 points** Accessibility improvements along less than 10 stops.
- Zero points** No improvements to transit route.

OR

Transfer center or maintenance facility improvements:

Improving the efficiency of a transit system includes construction of transfer centers, and/or maintenance facilities or garages to serve the system. A transfer center offers a place for transit users to wait comfortably and safely and improves transfer times, frequency, and service. Maintenance facilities or garages keep transit vehicles in a state of good repair with on-site maintenance and provide closer access to the transit system while eliminating deadhead trips to

another facility. The sponsor must provide documentation showing how these facilities will improve efficiency of their transit network.

- 25 points** Transfer center or maintenance facility/garage that improves efficiency of existing system or passenger delay.

Support Neighborhoods/Communities (15 total points)

ENVIRONMENTAL JUSTICE (10 points):

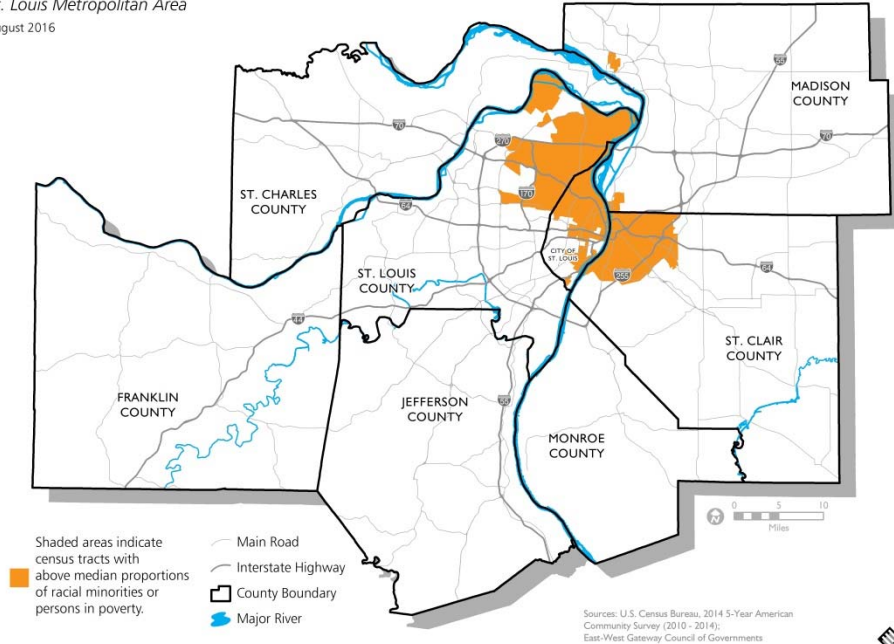
This criterion is included to account for projects that are located in Environmental Justice (EJ) areas. This is to ensure that populations that have traditionally been underserved have safe access to community resources and meaningful choices in transportation. East-West Gateway will use minority and low-income household Census data and GIS analysis to determine if the project is located in an EJ area. If the project falls in an EJ area, ten (10) points are awarded. If the project is not located in an EJ area, zero points are assigned. A map of the EJ areas is provided below and in Appendix XX.

- 10 points** Project falls in, or partially in, an EJ tract **AND** does not impose burden.

- Zero points** Project is not located in an EJ tract.

Environmental Justice Populations by Census Tract

St. Louis Metropolitan Area
August 2016



SUPPORTING SCHOOL ACCESS (3 points):

If the project provides improved transit access to school(s), three (3) points will be awarded. If there are no schools in the project vicinity, zero points will be assigned. The project applicant must provide the information on the project location map

3 points Project provides improved transit access to a school(s) within right-of-way.

Zero points Project does not provide improved transit access to a school.

SUPPORTING ACCESS TO COMMUNITY RESOURCES (2 points):

Transportation investments that connect residents to local community resources can have a profound impact on public health. If the project provides direct access to community resources, such as libraries, hospitals, community centers, YMCAs/gyms, park, etc., up to two (2) points will be awarded.

2 points Project provides improved transit access to community resources within right-of-way.

Zero points Project does not provide improved transit access to community resources.

Provide More Transportation Choices (10 total points)

BICYCLING AND WALKING (5 points):

Bicycling and walking are complementary to transit. Pairing safe and convenient bicycle and pedestrian facilities with transit gives people more transportation choices and expands the reach of the transit system. If the project provides for multi-modal access, five (5) points are awarded. If there are no multi-modal elements, zero points are assigned.

5 points Project is multi-modal and increases bicycle and pedestrian access.

Zero points No multi-modal accessibility.

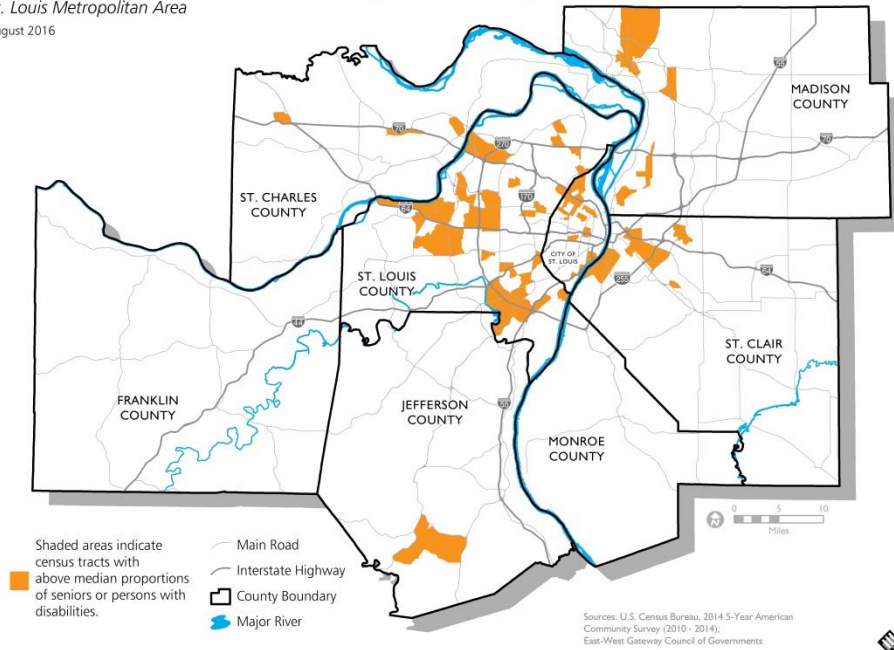
ELDERLY AND DISABLED TRANSPORTATION (5 points):

Non-drivers, including elderly and disabled individuals, often rely on public transportation to access daily activities. Public transportation also allows elderly to 'age in place' versus living in assisted living facilities, which is not always affordable. East-West Gateway staff will use senior and disability Census data and GIS analysis to determine if the project is located in an area with high concentrations of elderly and disabled individuals. If the project falls in an area with a high proportion of elderly and disabled individuals, five (5) points will be awarded. If the project does not fall in an area with a high proportion of elderly and disabled individuals, but provides features that benefit elderly and/or disabled individuals, three (3) points will be assigned. If there are no improvements for elderly and/or disabled individuals, zero points will be assigned.

- 5 points** Project falls in an area with a high proportion of elderly and disabled individuals, and provides features that benefit elderly and/or disabled individuals.
- 3 points** Project does not fall in an area with a high proportion of elderly and disabled individuals, but provides features that benefit elderly and/or disabled individuals.
- Zero points** No improvements for elderly and/or disabled individuals.

Disabled and Seniors Population by Census Tract

St. Louis Metropolitan Area
August 2016



Promote Safety and Security (5 total points)

- 5 points** Safety and security elements included (replacement and expansion).
- Zero points** Project does not promote safety and security.

Support a Diverse Economy with a Reliable Transportation System (5 total points)

Deployment of intelligent transportation systems (ITS) technologies can improve the service of a transit network. Examples of ITS project elements include Automated Vehicle Location technology, transit signal priority systems, onboard voice and digital announcements of next stop information, and real time bus arrival time information using digital countdown signs at bus stops. Projects that include new or improved ITS components or elements will receive five (5) points. Projects that do not include ITS components or elements will receive zero points.

- 5 points** Project includes new or improved ITS components or elements.
- Zero points** Project does not include new or improved ITS components or elements.

Support Quality Job Development (5 total points)

The *OnTheMap* tool is derived from census data and will be used to assess where workers are employed in the region. Employment density or jobs per census block will be used as a measure in determining how important improvements to transportation facilities are in the surrounding area. Each project will be assessed points based on its county location and number of jobs per sq. mile. Up to 5 points will be awarded based on the distribution in the *OnTheMap* tool at a county level.

- 5 points** High Jobs/Sq. Mile
- 4 points** Medium-High Jobs/Sq. Mile
- 3 points** Medium Jobs/Sq. Mile
- 2 points** Medium-Low Jobs/Sq. Mile
- Zero points** Low Jobs/Sq. Mile

Air Quality/Environment (10 total points)

Projects that improve air quality (e.g. new technology, alternative fuel vehicles, reduced congestion, etc.) will receive ten (10) points.

- 10 points** Project provides features to improve air quality.
- Zero points** Project does not provide features that improve air quality.