Applicants interested in applying for funding under the March 2011 Notice of Funding Availability (NOFA) are required to submit the narrative application forms, parts I and II, and other required documents according to the checklist contained in Section 4.2 of the NOFA and the Application Package Instructions available on FRA's website. All supporting documentation submitted for this FD/Construction project should be listed and described in Section G of this form. Questions about the HSIPR program or this application should be directed to the Federal Railroad Administration (FRA) at HSIPR@dot.gov.

Applicants must enter the required information in the gray narrative fields, check boxes, or drop-down menus of this form. Submit this completed form, along with all supporting documentation, electronically by uploading them to www.GrantSolutions.gov by 8:00 p.m. EDT on April 4, 2011.

A. Point of Contact and Applicant Information

Applicant should ensure that the information provided in this section matches the information provided on the SF-424 forms.

<table>
<tr><td colspan="2">(1) Name the submitting agency:
Missouri Department of Transportation</td><td colspan="3">Provide the submitting agency Authorized Representative name and title:

Rodney Massman, Administrator of Railroads</td></tr>
<tr><td>Address 1:

P.O. Box 270</td><td>City:

Jefferson City</td><td>State:

MO</td><td>Zip Code:

65102-</td><td>Authorized Representative telephone:

(573) 751-7476

Authorized Representative email:

Rodney.massman@modot.mo.gov</td></tr>
<tr><td colspan="2">Provide the submitting agency Point of Contact (POC) name and title (if different from Authorized Representative):

Rodney Massman, Administrator of Railroads</td><td colspan="3">Submitting agency POC telephone: (573) 751-7476

Submitting agency POC email:
Rodney.massman@modot.mo.gov</td></tr>
<tr><td colspan="5">(2) List out the name(s) of additional State(s) applying (if applicable):

N/A</td></tr>
</table>

B. Eligibility Information

Complete the following section to demonstrate satisfaction of an application's eligibility requirements.

(1) Select the appropriate box from the list below to identify applicant type. Eligible applicants are listed in Section 3.1 of the NOFA.

- ☒ State
- ☐ Group of States
- ☐ Amtrak
- ☐ Amtrak in cooperation with one or more States

If selecting one of the applicant types below, additional documentation is required to establish applicant eligibility. Please select the appropriate box and submit supporting documentation to demonstrate applicant eligibility, as described in Section 3.2 of the NOFA, to GrantSolutions.gov and list the supporting documentation under "Additional Information" in Section G.2 of this application.

- ☐ Interstate Compact
- ☐ Public Agency established by one or more States

(2) Indicate the planning processes used to identify the proposed FD/Construction project. As defined in Section 3.5.1 of the NOFA, the process should analyze the investment needs and service objectives of the service that the individual project is intended to benefit. Refer to the FD/Construction Application Package Instructions for more information. The appropriate planning document must be submitted with the application package and listed in Section G.2 of this application.

- ☐ State Rail Plan
- ☐ Service Development Plan (SDP)
- ☐ Service Improvement Plan (SIP)
- ☒ Statewide Transportation Improvement Plan (STIP)
- ☐ Other, please list this document in Section G.2 with "Other Appropriate Planning Document" as the title
- ☐ This project is not included in a relevant and documented planning process

(3) Verify the completion of Preliminary Engineering requirements. List the documents that establish completion of Preliminary Engineering for the project covered by this application. Refer to the NOFA and FD/Construction Application Package Instructions for more information. Any document not available online should be submitted with the application package and listed in Section G.2 of this application. If more rows are required, please provide the same information for additional PE requirements in a separate supporting document and list it in Section G.2 of this application.

Documentation	**Date of Issue** (*mm/yyyy*)	**Describe How Documentation Can Be Verified** (choose one)	
		Submitted in GrantSolutions	**Web Link** (if available)
Estimate from MoDOT	3/2011	☒	
Bridge and Roadway Plan sheets	3/2011	☒	

(4) Verify the completion of NEPA documentation. Indicate the date the document was issued and how the document can be verified by FRA. A NEPA decision document (Record of Decision, Finding of No Significant Impact, or FRA Categorical Exclusion concurrence) is not required for an application but must have been issued by FRA prior to award of a construction grant. Applications that are accompanied by a final NEPA determination will be looked upon favorably during the application review and selection process. Verified documents can be submitted as a supporting document or referenced through an active public URL. Any document not available online should be submitted with the application package and listed in Section G.2 of this application. Refer to the NOFA and FD/Construction Application Package Instructions for more information.

Documentation	**Date of Issue** (*mm/yyyy*)	**Describe How Documentation Can Be Verified** (choose one)	
		Submitted in GrantSolutions	**Web Link** (if available)
NEPA Documentation			
☒ Categorical Exclusion Documentation (worksheet)	*03/2011*	☒	
☐ Environmental Assessment		☐	
☐ Final Environmental Impact Statement	/	☐	
Project NEPA Determination			
☐ Categorical Exclusion	/	☐	
☐ Finding of No Significant Impact	/	☐	
☐ Record of Decision	/	☐	

(5) Select and describe the operational independence of the proposed FD/Construction project.[1] Refer to Sections 3.4.4 and 3.5.2 of the NOFA for more information about operational independence and applications related to previously-selected projects.

☐ This project is operationally independent.
☒ This project is operationally independent when considered in conjunction with previously selected or awarded HSIPR project(s) (identify previously selected or awarded projects below).
☐ This project is not operationally independent.

Briefly clarify the response:

This project is a grade separation only; however, it will remove an at-grade crossing from an existing siding and allow the siding to be used by trains, both freight and Amtrak, in a much more efficient way when the crossing is removed. Removing the crossing will also allow the extension of the siding to eventually accommodate longer trains, which will be a future application for future rounds.

[1] A project is considered to have operational independence if, upon implementation, it will have tangible and measurable benefits, either independently of other investments or cumulatively with projects selected to receive awards under previous HSIPR program solicitations.

C. FD/Construction Project Summary

Identify the title, location, and other information of the proposed project by completing this section.

(1) Provide a clear, concise, and descriptive project name. Use identifiers such as State abbreviations, major cities, infrastructure, and tasks of the individual project (e.g., "DC-Capital City to Dry Lake Track Improvements"). Please limit the response to 100 characters.

MO-KC to STL Corridor – Strasburg Grade Separation Crossover

(2) If the applicant submitted an application for this project, or a project within the scope, that was not selected, indicate the solicitation under which that application was submitted. Check all that apply.

- ☒ ARRA – Track 1
- ☐ ARRA – Track 2
- ☐ FY 2009 – Track 4
- ☐ FY 2009 Residual
- ☐ FY 2010 Service Development Program
- ☐ FY 2010 Individual Project – PE/NEPA
- ☐ FY 2010 Individual Project – FD/Construction
- ☐ N/A

(3) Indicate the activity(ies) proposed in this application. Check all that apply.

☒ Final Design ☒ Construction

(4) Indicate the anticipated duration, in months, for the proposed FD/Construction project. Consider that American Recovery and Reinvestment Act funding must be obligated by September 30, 2017.

Number of Months: *24*

(5) Specify the anticipated HSIPR funding level for the proposed FD/Construction project. This information must match the SF-424 documents, and dollar figures must be rounded to the nearest whole dollar. All applicants are encouraged to contribute non-Federal matching funds. FRA will consider matching funds in evaluating the merit of the application. See Section 3.3 of the NOFA for further information regarding cost sharing.

HSIPR Federal Funding Request	Non-Federal Match Amount	Total Project Cost	Non-Federal Match Percentage of Total
$5,000,000.00	50%	$10,000,000.00	**50%**

(6) Indicate the source, amount, and percentage of non-Federal matching funds for the proposed FD/Construction project. The sum of the figures below should equal the amount provided in Section C.5. Click on the gray boxes to select the appropriate response from the lists provided in type of source, status of funding, and type of funds. Dollar figures must be rounded to the nearest whole dollar. Also, list the percentage of the total project cost represented by each non-Federal funding source. Provide supporting documentation that will allow FRA to verify each funding source, any documentation not available online should be submitted with the application package and listed in Section G.2 of this application.

Non-Federal Match Funding Sources	Type of Source	Status of Funding [2]	Type of Funds	Dollar Amount	% of Total Project Cost	Describe Any Supporting Documentation to Help FRA Verify Funding Source
Missouri Dept of Transportation	Public	Comtd.	Road	$ 4,500,000.00	45%	See attached
Union Pacific Railroad	Priv.	Comtd.	Crsng.	$ 500,000.00	5%	See attached
Sum of Non-Federal Funding Sources				$ 5,000,000.00	50%	N/A

(7) Indicate whether the proposed activities in this application are also included as a component project or phase in a Service Development Program application submitted concurrently.

☐ Yes, all of the activities in this application have also been submitted as a component project or phase of a Service Development Program application.

☐ Yes, some of the activities within this application have also been submitted as a component project or phase of a Service Development Program application.

☒ No, this application and its proposed activities have not been submitted as a component project or phase of a Service Development Program application.

(8) Indicate the name of the corridor where the project is located and identify the start and end points as well as major integral cities along the route.

Kansas City to St. Louis Union Pacific Corridor (Begin at Milepost 6.9 on KC Terminal, continues over UP for 283 miles and ends at Milepost 0.0 at St. Louis Terminal (major cities are Kansas City, Sedalia, Jefferson City, Kirkwood and St. Louis). This is a federally designated high-speed rail corridor.

(9) Describe the project location, using municipal names, mileposts, control points, or other identifiable features such as longitude and latitude coordinates. If available, please provide a project GIS shapefile (.shp) as supporting documentation. This document must be listed in Section G.2 of this application.

Mileposts 243.05 on the Union Pacific Railroad, Sedalia subdivision, remove an at-grade crossing through the siding and create a grade separation approximately .1 mile to the west.

[2] The following categories and definitions are applied to funding sources:

Committed: Committed sources are programmed capital funds that have all the necessary approvals (e.g., statutory authority) to be used to fund the proposed project without any additional action. These capital funds have been formally programmed in the State Rail Plan and/or any related local, regional, or state capital investment program or appropriation guidance. Examples include dedicated or approved tax revenues, state capital grants that have been approved by all required legislative bodies, cash reserves that have been dedicated to the proposed project, and additional debt capacity that requires no further approvals and has been dedicated by the sponsoring agency to the proposed project.

Budgeted: This category is for funds that have been budgeted and/or programmed for use on the proposed project but remain uncommitted (i.e., the funds have not yet received statutory approval). Examples include debt financing in an agency-adopted capital investment program that has yet to be committed in the near future. Funds will be classified as budgeted when available funding cannot be committed until the grant is executed or due to the local practices outside of the project sponsors' control (e.g., the project development schedule extends beyond the State Rail Program period).

Planned: This category is for funds that are identified and have a reasonable chance of being committed, but are neither committed nor budgeted. Examples include proposed sources that require a scheduled referendum, requests for state/local capital grants, and proposed debt financing that has not yet been adopted in the agency's capital investment program.

(10) Provide an abstract outlining the proposed FD/Construction project. Briefly summarize the project narrative provided in the Statement of Work in 4-6 sentences. Capture the major milestones, outcomes, and anticipated benefits that will result from the completion of the individual project.

This project will improve on-time performance along the entire Union Pacific corridor in Missouri between St. Louis and Kansas City and will enhance the future provision of 90- to 110-mph service. This project will remove an at-grade state Route E crossing from the existing siding and main track in Strasburg in Cass County at milepost 243.05, and replace it with a grade separation approximately .1 mile to the west. This will also remove a 90-degree turn on Route E and connect it with Route 58 on the south side of the tracks. MoDOT will purchase the right of way needed for the grade separation and will use its existing right of way to tie Route E into Highway 58 on the south side of the tracks.

This will enhance both Amtrak's and Union Pacific's use of the siding by removing the current restrictions on blocking the crossing and interference with vehicular traffic. Amtrak and short intermodal UP trains currently use the siding, which is approximately 4,000 feet long. The area in which the siding is located will be approximately 10 miles from where the proposed 90-mph speed will end (see Lee's Summit to Pleasant Hill 90-mph application), and the siding will be in the next section of upgraded track to 90 mph that will occur in future years of funding opportunities. This will make the transition to 90 mph seamless in this area.

The ultimate goal is to remove an at-grade signalized crossing at MP 243.05, and build a new grade separation approximately .1 miles to the west. Union Pacific will make its contribution in conformance with federal law since the signalized crossing will be removed from the tracks.

(11) Indicate the type of expected capital investments included in the proposed FD/Construction project. Check all that apply.

- ☐ Communication, signaling, and control
- ☐ Electric traction
- ☐ Grade crossing improvements
- ☐ Major interlocking
- ☐ Positive Train Control
- ☐ Rolling stock acquisition
- ☐ Rolling stock refurbishments
- ☐ Station(s)
- ☒ Structures (bridges, tunnels, etc.)
- ☐ Support facilities (yards, shops, administrative buildings)
- ☐ Track rehabilitation and construction
- ☐ Other (please describe)

(12) Indicate the anticipated service outcomes of the proposed FD/Construction project. Check all that apply.

- ☐ Additional service frequencies
- ☐ Service quality improvements
- ☐ Increased average speeds/shorter trip times
- ☒ Improved operational reliability on existing route
- ☐ Improved on-time performance on existing route
- ☒ Other (please describe) Operational and Safety benefits

Briefly clarify the response(s) if needed:

The grade separation will make the siding usable as a siding without regard to vehicle traffic and will also remove a safety concern at a double-track crossing.

(13) Provide the following information about job creation through the life of the proposed FD/Construction project. Please consider construction, maintenance, and operations jobs.

	FD/ Construction Period	First full Year of Operations	Fifth full Year of Operations
Anticipated number of annual onsite and other direct jobs created (on a 2080 work-hour per year, full-time equivalent basis).	**57**	**.5**	**.5**
Indicate the anticipated fiscal year.	N/A	FY13	FY18

(14) Quantify the applicable service outcomes of the proposed FD/Construction project. Provide the current conditions and anticipated service outcomes. Future state information is required only for the service outcomes identified in Section C.11.

	Frequencies[3]	**Scheduled Trip Time** (round-trips, in minutes)	**Average Speed** (mph)	**Top Speed** (mph)	**Reliability –** Provide Either On-Time Performance Percentage or Delay Minutes
Current	4	540	49	79	80%
Future	4	540	55	79	80%

(15) Indicate if any FD or Construction activities that are part of this proposed project are underway or completed. Check all that apply.

☐ Final Design activities are complete.
☐ Construction activities are complete.
☒ Final Design activities are in progress.
☐ Construction activities are in progress.
☐ No Final Design activities are in progress or completed.
☒ No Construction activities are in progress or completed.

Describe any activities that are underway or completed in the table below. If more space is necessary, please provide the same information for additional activities underway or completed in a supporting document and list in Section G.2 of this application.

Activity	**Description**	**Completed?** (If yes, check box)	**Start Date** (*mm/yyyy*)	**Actual or Anticipated Completion Date** (*mm/yyyy*)
Final Design and Estimate Process	Continue site evaluation, design drawings and site plan	☒	3/2011	3/2012
Categorical Exclusion Worksheet	Evaluation of environmental impacts.	☒	3/2011	3/2011

[3] Frequency is measured in daily round-trip train operations. One daily round-trip operation should be counted as one frequency.

D. Infrastructure Owner(s) and Operator(s)

Address the section below with information regarding railroad infrastructure owners and operators of the proposed FD/Construction Project. Applicants that own and/or control the infrastructure to be improved by the project or have a service outcomes agreement in place with the infrastructure owning railroad for the proposed project, or an executed agreement that could be amended with the infrastructure owning railroad for a project(s) located on the same corridor as the proposed project, will be looked upon favorably during the application review and selection process.

(1) Provide information regarding Right-of-Way Owner(s). Where railroads currently share ownership, identify the primary owner. Click on the gray boxes to select the appropriate response from the lists of railroad type, right-of-way owner and status of agreement. If the Right-of-Way Owner is not included on the prepopulated list, select "Other" and type the name in the adjacent text box within that field. Should the application have more than five owners, please provide the same information for additional owners in a separate supporting document and list it in Section G.2 of this application.

Type of Railroad	Right-of-Way Owner	Route-Miles	Track-Miles	Status of Agreement to Implement
Freight	Union Pacific Railroad	283	424	Service Outcomes Agreement

(2) Name the Intercity Passenger Rail Operator and provide the status of agreement. If applicable, provide the status of the agreement with the partner that will operate the planned passenger rail service (e.g., Amtrak). Click on the gray box to select the appropriate response from the status of agreement list. Should the proposed service have more than three operators, please provide the same information for additional operators in a separate supporting document and list it in Section G.2 of this application.

Name of Rail Service Operator	Status of Agreement
Amtrak	Yearly Operating Agreement

(3) Provide information about the existing rail services within the project boundaries (e.g., freight, commuter, and intercity passenger). Click on the gray boxes to select the appropriate response from the list of types of service. If the Name of Operator is not included in the prepopulated list, select "Other" and type the name in the adjacent text box within that field.

Type of Service	Name of Operator	Top Existing Speeds Within Project Boundaries (mph)		Number of Route-Miles Within Project Boundaries (miles)	Average Number of Daily One-Way Train Operations[4] within Project Boundaries
		Passenger	Freight		
Freight	Union Pacific	65	55	.5	22
Intercity passenger	Amtrak	65	55	.5	4

[4] One daily round-trip operation should be counted as two daily one-way train operations.

(4) Estimate the share of benefits that will be realized by non-intercity passenger rail services and select the approximate cost share to be paid by the beneficiary.[5] Click on the gray boxes to select the appropriate response from the lists of type of beneficiary, expected share of benefits, and approximate cost share. If more than three types of non-intercity passenger rail are beneficiaries, please provide additional information in a separate supporting document, and list it in Section G.2 of this application.

Type of Non-Intercity Passenger Rail	Expected Share of Benefits	Approximate Cost Share
Freight	10%	5%

[5] Benefits include service improvements such as increased speed or on-time performance, improved reliability, and other service quality improvements.

E. Additional Response to Evaluation Criteria

Respond to each of the following evaluation criteria in the gray text boxes provided to demonstrate how the proposed FD/Construction project will achieve these benefits.

(1) Project Readiness

Describe the feasibility of the proposed FD/Construction project to proceed promptly to award, including addressing:

- The applicant's progress, at the time of application, in reaching compliance with NEPA for the proposed project. Although a NEPA decision document (Record of Decision, Finding of No Significant Impact, Categorical Exclusion determination) is not required at the time of application, applications for Individual FD/Construction Projects that are accompanied by a final NEPA determination will be looked upon favorably during the application review and selection process;
- The applicant's progress, at the time of application, in reaching final service outcomes agreements (where necessary) with key project partners. Applicants that own and/or control the infrastructure to be improved by the project or have a service outcomes agreement in place with the infrastructure owning railroad for the proposed project, or an executed agreement that could be amended with the infrastructure owning railroad for a project(s) located on the same corridor as the proposed project, will be looked upon favorably during the application review and selection process; and
- The quality and completeness of the project's Statement of Work, including whether the Statement of Work provides a sufficient level of detail regarding scope, schedule, and budget to immediately advance the project to award.

The project is progressing toward NEPA compliance and will be handled as a MoDOT highway project in that all normal bidding, contracting and federal compliance issues will be addressed as in any state highway project. The overall goals of the SOA signed with Union Pacific in March 2011 are consistent with this project's goals in that it will remove a barrier to fluidity in a siding and will ease rail congestion, while paving the way for a new project eventually in extending the siding. The statement of work (attached) is consistent with these goals.

PE/NEPA has progressed to roughly 75 percent. A Categorical Exclusion worksheet has been completed for FRA review and approval, and is included with this application. In addition, preliminary designs have also been prepared by the district and are attached. The local community has had a public meeting attended by MoDOT officials in which the community responded positively. MoDOT district, bridge and environmental employees have all had various input and studies into the project along with the rail office, and this involvement continues. The progress, when further approvals are given for construction, will be quick and efficient as the project is set to be streamlined for the highest perception when approved.

The bridge's technical provisions are as follows: the bridge elevation, when the survey is available, will be of an acceptable height to the railroad. The preliminary version of the estimate for the bridge is a three span NU girder bridge crossing. The main span was increased to 106-feet to provide a full crossing of the 100-foot railroad right of way and ditches.

The bridge width was assumed to have a 38-foot roadway, part of which is pedestrian and bike path that will be ADA approved. Collision walls will be installed underneath the structure. The concept is to remove an at-grade crossing that causes back up of rail traffic and is unreliable for vehicle traffic crossing. The railroad is compelled to clear the crossing at intervals to avoid shutting down the town for indefinite periods of time. This also conflicts with the projected use of a high-speed rail system that needs to have full use of the siding track to operate with a suitable schedule.

In addition, UP has worked collaboratively with MoDOT to advance the current projects and negotiations of the SOA in 2011, despite numerous difficulties on a national scale involving the obligations that Host railroads have in relation to rail passenger services that they host. MoDOT and UP both signed the SOA and final negotiations are pending with

FRA and Amtrak. Now that this milestone has been accomplished, we're confident we can aggressively pursue the PE/NEPA projects and proceed to construction expeditiously.

(2a) Transportation Benefits

Describe the transportation benefits that will result from the proposed FD/Construction project and how they will be achieved in a cost-effective manner, including addressing:

- Generating improvements to existing high-speed and intercity passenger rail service, as reflected by estimated increases in ridership, increases in operational reliability, reductions in trip times, additional service frequencies to meet anticipated or existing demand, and other related factors;
- Generating cross-modal benefits, including anticipated favorable impacts on air or highway traffic congestion, capacity, or safety, and cost avoidance or deferral of planned investments in aviation and highway systems;
- Creating an integrated high-speed and intercity passenger rail network;
- Encouragement of intermodal connectivity and integration, including a focus on convenient connection to local transit and street networks, as well as coordination with local land use and station area development;
- Ensuring a state of good repair of key intercity passenger rail assets;
- Promoting standardized rolling stock, signaling, communications, and power equipment;
- Improved freight or commuter rail operations, in relation to proportional cost-sharing (including donated property) by those other benefiting rail users;
- Equitable financial participation from benefiting entities in the project's financing;
- Encouragement of the implementation of positive train control (PTC) technologies (with the understanding that 49 U.S.C. 20147 requires all Class I railroads and entities that provide regularly scheduled intercity or commuter rail passenger services to fully institute interoperable PTC systems by December 31, 2015); and
- Incorporating private investment in the financing of capital projects or service operations.

This project has many different benefits. The passenger rail benefit is paramount because it will make the siding usable as a passing siding where Amtrak can freely use the siding while not blocking the crossing currently in the middle of the siding.

The safety benefits are from removing an at-grade double-track crossing thereby eliminating the problem of activations and vehicles attempting to run the gates when they are down because drivers do not realize there are two trains in the area.

The overall benefit for the passenger rail route is to provide yet another usable siding in this area that was identified as a need in a 2007 University of Missouri study.

The project will also facilitate the eventual provision of 90-mph service in the area. The 90-mph project is proposed as part of a separate application from MoDOT (refer to MO-Lee's Summit to Pleasant Hill 90 mph) that will end only approximately 10 miles from this location. It can easily be expanded in further funding rounds to extend the 90-mph segment beneath this grade separation and on to the east, providing a seamless transition to 90-mph service.

There is no commuter service on the line, but if that is a possibility in the future for the Kansas City metro area, the benefits of the grade separation would be extremely important to removing what could be a potentially busy grade crossing.

(2b) Other Public Benefits

Describe the other public benefits that will result from the proposed FD/Construction project and how they will be achieved in a cost-effective manner, including addressing:

- The extent to which the project is expected to create and preserve jobs and stimulate increases in economic activity;
- Promoting environmental quality, energy efficiency, and reduction in dependence on oil, including the use of renewable energy sources, energy savings from traffic diversions from other modes, employment of green building and manufacturing methods, reductions in key emissions types, and the purchase and use of environmentally sensitive, fuel-efficient, and cost-effective passenger rail equipment; and
- Promoting coordination between the planning and investment in transportation, housing, economic development, and other infrastructure decisions along the corridor, as identified in the six livability principles developed by DOT with the Department of Housing and Urban Development and the Environmental Protection Agency as part of the Partnership for Sustainable Communities, which are listed fully at http://www.dot.gov/affairs/2009/dot8009.htm.

One of the project's goals is to improve dependability and speed of Amtrak service between St. Louis and Kansas City. This service connects 10 diverse communities including Missouri's two largest major metropolitan areas, the state capital and several popular historic towns. Improving the service will synergistically support the existing transportation systems providing intermodal access to an abundance of work- and tourist-related locations within these 10 communities. The Gateway Transportation Center in downtown St. Louis combines access from Amtrak to the local transit systems (light rail and bus), taxis and intercity buses.

In Hermann, Sedalia and Jefferson City, passengers can access the Katy Trail State Park, which is Missouri's most popular hiking/biking facility and the nation's longest rails-to-trails conversion. Amtrak and Missouri partnered to provide specific accommodation for bicycles on board the trains in response to passengers desiring to take bikes along for trail rides. Also in Sedalia, the OATS transit system shares the building with the Amtrak station.

In Warrensburg, home of the University of Central Missouri, the local bus system includes the Amtrak station along with 14 other regular stops. In Kansas City, the Amtrak station is located at Union Station, which is a local bus transfer facility offering access to the metropolitan area.

In addition to these locations with interconnect ability to other transportation facilities, six of the Amtrak stations provide direct access to historic downtown business areas with stores, restaurants, wineries and lodging within walking distance. The expected improvements to Amtrak service will foster positive enhancement to livable communities.

The *High-Speed Intercity Rail Plan's* goal is to reduce delay time for both passenger and freight trains by adding additional rail sidings and enhancing existing rail infrastructure. The project would span the distance between Kansas City and St. Louis. The first phase involves three corridor improvement projects with a combined investment of $36 million. Additional projects along the corridor would complete phase two with a combined investment of $115 million. The total investment for the Missouri plan is estimated at $151 million.

- The Strasburg grade separation project would construct an overpass and remove a current at-grade crossing at

Route E in order to facilitate Amtrak's use of an existing siding and allow better use of the mainline by Union Pacific. Project construction is located in the economically distressed area of Greater Kansas City, Missouri. The total project investment is $15 million.

- The following information from the Missouri Department of Economic Development's Missouri Economic Research and Information Center addresses the economic recovery and reinvestment benefits.

Statewide Impact of Strasburg Grade Separation Project
During the next three years, every dollar of project investment returns (benefit-cost ratio):

- 0.03 : 1.00 in new net general revenues totaling $0.451 million,
- 0.52 : 1.00 in new personal income totaling $7.748 million,
- 0.76 : 1.00 in new value-added (GSP) totaling $11.378 million, and
- 1.27: 1.00 in new economic activity (output) totaling $19.049 million.

On average each year, the project creates:

- 57 new jobs annually (38 direct/ 19 indirect) paying an average wage of $38, 364 per job,
- $ 0.15 million in new net general revenues annually,
- $ 2.58 million in new personal income annually,
- $ 3.79 million in new value-added to the economy annually, and
- $6.35 million annually in new economic activity.

.

(3) Project Delivery Approach

Describe the risk associated with the delivery of the proposed FD/Construction project within budget, on time, and as designed, including addressing:

- The timeliness of project completion and the realization of the project's benefits;
- The applicant's financial, legal, and technical capacity to implement the project;
- The applicant's experience in administering similar grants and projects;
- The soundness and thoroughness of the cost methodologies, assumptions, and estimates;
- The thoroughness and quality of the project management documentation;
- The timing and amount of the project's future noncommitted investments;
- The adequacy of any completed engineering work to assess and manage/mitigate the proposed project's engineering and constructability risks; and
- The sufficiency of system safety and security planning.

MoDOT was successful in securing a previous grant from the Federal Railroad Administration, Intercity Passenger Rail Program, Grant No. 6048 of $3,292,684 to construct a new siding at Shell Spur on the same Union Pacific-Amtrak corridor of this project. The Shell Spur award was made September 30, 2008, and construction began May 29, 2009. Work was completed in December 2009. Successful implementation and completion of the Shell Spur project demonstrates MoDOT's ability to administer these grants effectively. The award was matched to a $5 million state appropriation. An MOU and a later multifaceted agreement were signed in 2009 with the Union Pacific Railroad to facilitate the project. A grant agreement was also signed with the FRA. Also three shovel-ready projects were awarded to MODOT in 2010 on the first round of applications, and these projects are in the pre-construction stage. In

addition, the SOA was signed by MoDOT and UP in March 2011 and continued negotiations are pending with Amtrak and FRA.

Both application and the current grant oversight are efforts on behalf of many areas of expertise in the Missouri Department of Transportation. These areas include environmental, design, transportation planning, governmental relations and multimodal operations. The project is in essence a bridge project, and MoDOT, as the state's highway agency, has years of experience in building and maintaining bridges and their approaches.

The bridge's design and implementation will have the same oversight, planning, budget and cost-overrun avoidance, audit and acceptance requirements as any other MoDOT bridge project. When completed, the grade separation will be maintained as part of the state highway system, and the railroad (or Amtrak) will have no responsibilities related to the bridge.

(4) Sustainability of Benefits

Identify the likelihood of realizing the proposed FD/Construction project's benefits, including addressing:

- The applicant's financial contribution to the project;
- The quality of a financial planning documentation that analyzes the financial viability of the HSIPR service that will benefit from the project;
- The availability of any required operating financial support, preferably from dedicated funding sources;
- The quality and adequacy of project identification and planning; and
- The reasonableness of estimates for user and non-user benefits for the project.

MoDOT is contributing 45 percent of the project's costs, and UP is contributing 5 percent. The demonstration of commitment to the project by this allocation is extremely high due to the fact that the project is the first step of a two-step process: (1) remove the at-grade crossing, build the bridge and make the siding useable; and (2) apply for federal allocations in future rounds to extend the siding to a full 9,000 feet. The project commitment is also shown due to previously applying for PE-NEPA, which was granted and now is in the full impact stage of what construction processes would be needed. There is no known funding risk if approved per the cost-sharing terms with Union Pacific and the MOU. The project can be completed in a two-year construction timeframe, so barring extreme unforseen 'acts of God,' such as earthquakes, tornados, floods or fires, there are no schedule risks. Amtrak has shown no propensity to discontinue service as long as there is state financial support, which has been in place for more than 30 years. Many communities have invested substantial funds in their train stations and have a vested interest in ensuring the route's success, so there is no substantial risk of cities discontinuing support of their station stops.

If this application is approved, MoDOT will appreciate an expedited completion of the grant agreement, so the project can be quickly started. MoDOT will require minimal technical assistance similar to the FRA assistance requested during the successful implementation of the application for an intercity passenger rail grant in 2008.

When PE and NEPA are completed, the project can immediately move to construction on MODOT's regular construction schedule. Each of the projects has been estimated in terms of projected costs and are following the strictures of one or both of the following: (1) the University of Missouri Engineering School's detailed capacity analysis of the line and its subsequent updates, and (2) the memorandum of understanding and the Service Outcomes Agreement signed between MoDOT and Union Pacific – a result of MoDOT's efforts to pursue projects for funding along the present UP corridor for its state-supported trains and in conjunction therewith to secure minimum levels of

performance from the railroad acceptable to the state, Amtrak and the FRA.

F. Statement of Work

The Statement of Work (SOW) is a required document. This must be submitted using the Narrative Application Form Part II. Statement of Work available on FRA's website to provide the required information. The quality and completeness of this document will be measured as a Project Readiness evaluation criterion, as outlined in Section 5.2.1 of the NOFA. Please provide the SOW as a separate document and list it in Section G.2 of this application.

The SOW is a description of the work that will be completed under the grant agreement and must address the background, scope, and schedule, and include a high-level budget of the proposed project.

(1) The SOW is required for a complete application package.

(2) The SOW should contain sufficient detail so that both FRA and the applicant can:

a. Understand the expected outcomes of the work to be performed by the applicant, and
b. Track applicant progress toward completing key project tasks and deliverables during the period of performance.

(3) The SOW should clearly describe project objectives, but allow for a reasonable amount of flexibility regarding how the objectives will be accomplished. It is important to describe the overall approach to and expectations for project/activity completion.

(4) If the SOW describes work for phases and/or groups of component projects, the larger program should be explained in the background section of the SOW. The remainder of the SOW should be limited to describing the activities that directly contribute to the combined FRA and applicant effort which is funded under the grant agreement.

G. Optional Supporting Information

Provide a response to the following questions, as necessary, for the proposed FD/Construction project.

(1) Please provide any additional information, comments, or clarifications, and indicate the section and question number that being addressed (e.g., Section E.2). Completing this question is optional.

(2) Please provide a document title, filename, and description for all optional supporting documents. Ensure that these documents are uploaded to GrantSolutions.gov with the narrative application form and use a logical naming convention.

Document Title	Filename	Description and Purpose
Bridge Estimate	Strasburg Bridge Estimate.pdf	Split-out of costs for bridge.
Strasburg bridge plan	Strasburg bridge profile.pdf	Plan sheet for bridge profile.
Plan Sheet	Strasburg Plan Sheet.pdf	Plan sheet for roadway/bridge/crossing
Right of Way estimate	Strasburg Right of Way Estimate.pdf	Split out of costs for R/W acquisition
Roadway Plan Sheet	Strasburg Roadway Plan.pdf	Plan sheet for roadway/bridge/crossing
Total Project Estimate	Strasburg Total Project Estimate.pdf	Total split out of costs for all work.
Categorical Exclusion Worksheet	Strasburg Categorical Exclusion Worksheet.doc	Describes environmental concerns.
Introductory letter from MoDOT Director	1lntro LETTER signed by KKeith.pdf	Cover letter for the HSIPR projects signed by MoDOT Interim Director
Overview of 2011 Projects	2Project Overview.pdf	Overview of Projects
HSIPR Projects Division of Costs	3HSIPR RAIL PROJECTS DIVISION OF COSTS Mar29 2011.docx	HSIPR Projects Division of Costs
Project Map and Partner Signature Map	4 2J011_HSIPR_Project_Map.pdf	Detailed project map and same map with signatures of support
Project Map and Partner Signature Map	SProject Map and Partner Signature Map.pdf	Detailed project map and same map with signatures of support
MOU between 4 states for joint application	6 State Equipment MOU.pdf	Demonstrates support of project by all parties.
Support Letter from UP for 2011 Applications	7 2011_UP_Support_Ltr.pdf	Provides support of projects for application
MoDOT/UP/Amtrak SOA	8Preliminary Executed SOA with UP.pdf	Identifies Service Outcomes for completion of projects
Multi State Governors MOU	9MuIti - StateGovernorsM0USigned.pdf	Demonstrates commitment to High Speed Rail

Map of High Speed Rail	10US Federally Designated High Speed Rail Corridor Map.pdf	Identifies High Speed Rail Corridors
Letters of Reduced	11Complete Letters of Support-reduced.pdf	Letters of Support
Rail Capacity Analysis I & II	12Rail Capacity Analysis ReportsI and II.pdf	Rail Capacity Analysis Reports I and II
2009, 2010 and 2011 Economic Studies	13Economic Studies by MERIC.pdf	HSIPR Statewide and Lonterm Impacts Study prepared by MERIC
Mo Passenger Rail Schedule	14MO Passenger Rail Schedule.pdf	Missouri Passenger Rail Schedule
Mo Intercity Bus Stops	15Intercity Bus Stops.pdf	Missouri Intercity Bus Stops
Statewide Transportation Improvement Plan	16MHTC Auth on Corridor Improvement Projects STIP 2011-2015.pdf	Projects identified in Statewide Transportation Improvement Plan
Amtrak Operating Agreement	17Amtrak Operating Agreement.pdf	Amtrak Operating Agreement
Amtrak-MoDOT MOU	18Amtrak-MoDOT MOU.pdf	Amtrak-MoDOT MOU
Kansas City Terminal Memorandum of Understanding	19Kansas_City_Terminal_MOU.pdf	Commitment to application by MoDOT and KCT
Terminal Railroad Association of St. Louis Memorandum of Understanding	20STLTerminal-MoDOT MOU.pdf	Commitment to application by MoDOT and TRRA
Terminal Railroad Association of St. Louis Memorandum of Understanding	21TRRA MOU N. Market and Merchants.pdf	Commitment to application by MoDOT and TRRA
UP Memorandum of Understanding	22UP-MODOT MOU signed copy.pdf	Commitment to application by MoDOT and UP
UP Track Layout	23UP Track Layout.pdf	UP Track Layout
1996 Agreement	24-1996 agreement between MODOT and UP to preserve 3 more slots.pdf	1996 Agreement between MoDOT and UP to preserve 3 more slots
Amtrak Support Letter for	25 Amtrak Support for Merchants and	Amtrak Support Letter

Merchants and N Market	N. Market	
Shell Spur Agreement	26Shell SpurAgreement.pdf	Shell Spur Agreement

Narrative Application Form Individual FD/Construction Part II Statement of Work

High-Speed Intercity Passenger Rail (HSIPR) Program

Statement of Work

The quality and completeness of this document will be measured as a Project Readiness evaluation criterion, as outlined in Section 5.2.1 of the NOFA. The applicant must provide a sufficient level of detail regarding scope, schedule, and budget that demonstrates the project is ready to immediately advance to award. Tables have been provided as illustrative examples for capturing data however, applicants can delete or adjust the tables as necessary. This form must be listed in Section G.2 of the Narrative Application Form Part I.

(1) Background. Briefly describe the events that led to the development of this FD/Construction project and the issue the project will address. Also describe the transparent, inclusive planning process used to analyze the investment needs and service objectives of the full corridor on which the individual FD/Construction project is located.

This proposed project is located on the Union Pacific Railroad in Missouri along the *Missouri River Runner* route, which is the Amtrak-state supported service. There are 10 Amtrak stations along the route that include St. Louis, Kirkwood, Washington, Hermann, Jefferson City, Sedalia, Warrensburg, Lee's Summit, Independence and Kansas City. There is no commuter rail service on this line. The only freight use is by UP freight trains. There will be no donated land from the railroad to construct the project.

This project was identified in a 2006 University of Missouri study that analyzed the need for a new or extended usable siding in the Strasburg area, which eases congestion between Lee's Summit and Warrensburg. This area was identified as having the highest rate of delay for Amtrak, nearly 19 percent. This project was also identified by MoDOT as a way of taking the current at-grade crossing out of the siding and converting it to a usable siding that could serve as a location where Amtrak could pass freight trains without blocking the current vehicle traffic.

Although the siding is used now, the use is sparing and inefficient because Amtrak trains block the crossing when it is being used. If Amtrak were to pass using the siding while the freight train moved on the mainline, both trains would block traffic. This creates the unsafe situation that occurs at two-track crossings when one train sits and waits near a crossing and activates the equipment while another moves on the other track unseen from vehicles with an obscured view. There is then the risk that vehicles will run the gates, thinking the parked train is the only one activating the gates.

The grade separation removes the double-track at-grade crossing. It also has an independent roadway utility in that it provides 24-hour access for emergency vehicles, removes a curve on Route E in Strasburg, provides a school access for students that must cross the tracks and provides for future development around a growing suburban Kansas City

area. The plan also contains fencing of much of the railroad right of way and inclusion of a multi-use path suitable for bicycles across the grade separation.

(2) Scope of Activities. Clearly describe the scope of the proposed FD/Construction project and identify the general objective and key deliverables.

(2a) General Objective. Provide a general description of the work to be accomplished through this grant, including project work effort, project location, and other parties involved. Describe the end-state of the project, how it will address the need identified in Background (above), and the outcomes that will be achieved as a result of the project.

This project will improve on-time performance along the entire Union Pacific corridor in Missouri between St. Louis and Kansas City and will enhance the future provision of 90- to 110-mph service. This project will remove an at-grade state Route E crossing from the existing siding and main track in Strasburg, Cass County, Missouri, at milepost 243.05 and replace it with a grade separation approximately .1 mile to the west. This will also remove a 90-degree turn on Route E and connect it with Route 58 on the south side of the tracks. MoDOT will purchase the right of way needed for the grade separation and will use its existing right of way to tie Route E into Highway 58 on the south side of the tracks.

This will enhance Amtrak and Union Pacific's use of the siding by removing the current restrictions on blocking the crossing and interference with vehicular traffic. Amtrak and short intermodal UP trains currently use the siding, which is approximately 4,000 feet long. The area in which the siding is located will be approximately 10 miles from where the proposed 90-mph speed will end (see Lee's Summit to Pleasant Hill 90-mph application) and the siding will be in the next section of upgraded track to 90 mph that will occur in future years of funding opportunities. This will make the transition to 90 mph seamless in this area.

The ultimate goal is to remove an at-grade signalized crossing at MP 243.05 and build a new grade separation approximately .1 miles to the west.

(2b) Description of Work. Provide a detailed description of the work to be accomplished through this grant by task (e.g., FD and Construction) including a description of the geographical and physical boundaries of the project. Address the work in a logical sequence that would lead to the anticipated outcomes and the end state of the activities.

MoDOT is working on the project's construction cost estimate and all concurrent design/NEPA requirements, including design, utility, environmental, public involvement and survey. MoDOT has completed NEPA and design requirements satisfactorily on many projects, including other similarly designed railroad grade separations, one of which is nearby and will carry Route 13 over UP on this same route.

The project is progressing toward NEPA compliance and will be handled as a MODOT highway project in that all normal bidding, contracting and federal compliance issues will be addressed as in any state highway project. The overall goals of the SOA signed with Union Pacific in March 2011 are consistent with the goals for this project in that it will remove a barrier to fluidity in a siding and will ease rail congestion while paving the way for a new project eventually in extending the siding. The statement of work (attached) is consistent with these goals.

PE/NEPA has progressed to roughly 75 percent. A Categorical Exclusion worksheet has been completed for FRA review and approval and is included with this application. In addition, preliminary designs have also prepared by the district and are attached. The local community has had a public meeting attended by MODOT

officials to which the community responded positively. MoDOT district, bridge and environmental employees have all had various input and studies into the project along with the rail office, and this involvement continues. The progress, when further approvals are given for construction, will be quick and efficient as the project is set to be streamlined for the highest perception once the projects are approved.

This project is designed to provide a bridge crossing on Route E over the railroad connecting with Route 58 on the west side of town. The current location is an at-grade intersection in the middle of Strasburg. The proposed design provides for Route E to cross over both the railroad and Route 58, and then connect with Route 58 much like a loop ramp. This design was chosen over a "T" intersection to eliminate the unsafe condition of the intersection being below the crest of the bridge's vertical curve. The loop ramp allows the traffic to safely come to a stop before intersecting with Route 58. Another benefit of the loop ramp connection is a much smaller foot print than a traditional "T" intersection, thus effecting fewer property owners and taking less right of way overall. This design also reduces the amount of fill that would have to be brought in to raise Route 58.

The technical provisions of the bridge are as follows: the bridge elevation, when the survey is available will be of an acceptable height to the railroad. The preliminary version of the estimate for the bridge is a three-span NU girder bridge crossing. The main span was increased finally to 106 feet to provide a full crossing of the 100-feet railroad right of way and ditches. The width of bridge was assumed to have a 38-foot roadway part of which is pedestrian and bike path that will be ADA approved. Collision walls will be installed underneath the structure. The concept is to remove an at-grade crossing that causes back up of rail traffic and is unreliable for vehicle traffic crossing as well. The railroad is compelled to clear the crossing at intervals to avoid shutting down the town for indefinite periods of time. This also conflicts with the projected use of a high-speed rail system that needs to have full use of the siding track to operate with a suitable schedule.

Another aspect of the project involves three properties located west of the Strasburg between the existing Route 58 and CR 190. Access to the properties will have to be switched from Route 58 to CR 190 just north of Route 58. This is being done in an attempt to reduce the number of private crossings along the railroad, especially in the area of the railroad siding.

(2c) Deliverables. Describe the work products of the project to be completed to FD, or constructed in accordance with the FD that were provided to FRA during the application process or will be completed as a part of this grant. In the table provided, list the deliverables, both interim and final, that are the outcomes of the project tasks.

	Deliverable	Task
1	Project drawings and estimate	Preliminary Engineering
2	Categorical Exclusion Worksheet	NEPA Evaluation
3	Track Drawing Plan Sheets	Final Design
4	Stakeholder Construction Agreement, Tri-Party Service Outcomes Agreement, Grant Agreement with FRA	Agreements for obligation of funds

(3) Project Schedule. In the table below, estimate the approximate duration for completing each task in months. For total project duration, reference Section C.4 in the Narrative Application Form Part I.

	Task	Duration		
		Start Month	to	End Month
1	FD/ Engineering	June 2011	**to**	May 2012
2	Construction	June 2012	**to**	May 2013
	Total project duration	*24 months*		

(4) Project Cost Estimate/Budget. Provide a high-level cost summary of FD/Construction work in this section, using the FD/Construction Application Package Instructions, the HSIPR Individual Project Budget and Schedule form, and the Narrative Application Form Part I as references. The figures in this section of the Statement of Work should match exactly with the funding amounts requested in the SF-424 form, the HSIPR Individual Project Budget and Schedule form, and Section C of the Narrative Application Form Part I. If there is any discrepancy between the Federal funding amounts requested in this section, the SF-424 form, the HSIPR Individual Project Budget and Schedule form, or Section C of the Narrative Application Form Part I, the lesser amount will be considered as the Federal funding request. Round to the nearest whole dollar when estimating costs.

The total estimated cost of the proposed FD/Construction project is provided below, for which the FRA grant will contribute no more than the Federal funding request amount indicated. Any additional expense required beyond that provided in this grant to complete the proposed FD/Construction project shall be borne by the Grantee.

FD/Construction Project Overall Cost Summary		
#	**Task**	**Cost in FY11 Dollars**
1	FD/ Engineering	$ 4,000,000
2	Construction	$ 6,000,000
	Total FD/Construction project cost	$ 10,000,000
Federal/Non-Federal Funding		
		Cost in FY11 Dollars	**Percentage of Total Activities Cost**
	Federal funding request	$5,000,000	50 %
	Non-Federal match amount	$ 4,500,000	45 %
	Host match amount	$500,000	5%
	Total FD/Construction project cost	$ 10,000,000	100 %