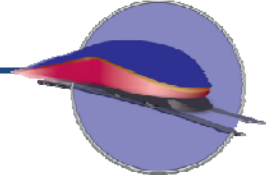


Service Development Program Application Form

High-Speed Intercity Passenger Rail (HSIPR) Program



Applicants interested in applying for funding under the FY10 Service Development Programs solicitation are required to submit this application form and other required documents as outlined in Section H of this application. List and describe any supporting documentation submitted in Section G. Applicants should reference the FY10 Service Development Programs Notice of Funding Availability (NOFA) for more specific information about application requirements. If you have questions about the HSIPR program or this application, please contact the Federal Railroad Administration (FRA) at HSIPR@dot.gov.

Applicants must use [this form](#) by entering the required information in the gray narrative fields, check boxes, or drop-down menus. Submit this completed form, along with any supporting documentation, electronically by uploading it into GrantSolutions.gov by 5:00 p.m. EDT on August 6, 2010.

A. Point of Contact and Applicant Information

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

(1) Name the submitting agency: Michigan Department of Transportation		Provide the submitting agency Authorized Representative name and title: Kirk T. Steudle, Director		
Street Address: 425 West Ottawa Street P.O. Box 30050	City: Lansing	State: MI	Zip Code: 48909	Authorized Representative telephone: 517-373-2114 Authorized Representative email: steudlek@michigan.gov
Provide the submitting agency Point of Contact (POC) name and title (if different from Authorized Representative): Al Johnson, Supervisor Office of High Speed Rail & Innovative Project Advancement		Submitting agency POC telephone: 517-35-2549 Submitting agency POC email: johnsonal@michigan.gov		
(2) List the name(s) of additional State(s) applying (if applicable): N/A				

B. Eligibility Information

Complete the following section to satisfy requirements for applicant eligibility.

(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
- Amtrak
- Group of States
- Amtrak in cooperation with a State or 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) Verify the status of eligibility documentation including the dates of issue and how documentation can be verified by FRA. Verify any completed EA or Final EIS document that demonstrates satisfaction of “Service NEPA” for the proposed Service Development Program by indicating if documents are submitted through GrantSolutions.gov or referenced through a public active URL. See Section 4.2.5 and Appendices 2.1 and 2.2 of the NOFA as references. Second-tier project NEPA documents for projects within the program may also be included. A NEPA decision document (Record of Decision or Finding of No Significant Impact) is not required for an application but must be issued by FRA prior to award of a construction grant. Any eligibility documents should be listed in Section G.2 of this application.

Service Development Planning

Documentation	Date (mm/yyyy)	Describe How Documentation Can Be Verified (choose one)	
		Submitted in GrantSolutions	Web Link
<input checked="" type="checkbox"/> Service Development Plan	09/2009	<input checked="" type="checkbox"/>	

Service NEPA Documents

Documentation	Date (mm/yyyy)	Describe How Documentation Can Be Verified (choose one)	
		Submitted in GrantSolutions	Web Link
<input checked="" type="checkbox"/> Final Environmental Assessment (EA)	08/2010	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Final Environmental Impact Statement (EIS)	mm/yyyy	<input type="checkbox"/>	

FRA Decision Documents for Service Development Programs

Documentation	Date (mm/yyyy)	Describe How Documentation Can Be Verified (choose one)	
		Submitted in GrantSolutions	Web Link
<input type="checkbox"/> Finding of No Significant Impact (FONSI)		<input type="checkbox"/>	
<input type="checkbox"/> Record of Decision (ROD)	mm/yyyy	<input type="checkbox"/>	
Documentation (select from the list of choices)	Date (mm/yyyy)	Describe How Documentation Can Be Verified (choose one)	
		Submitted in GrantSolutions	Web Link
Categorical Exclusion Documentation (worksheet)	mm/yyyy	<input type="checkbox"/>	
Categorical Exclusion Documentation (worksheet)	mm/yyyy	<input type="checkbox"/>	

Categorical Exclusion Documentation (worksheet)	<i>mm/yyyy</i>	<input type="checkbox"/>	
Categorical Exclusion Documentation (worksheet)	<i>mm/yyyy</i>	<input type="checkbox"/>	
Categorical Exclusion Documentation (worksheet)	<i>mm/yyyy</i>	<input type="checkbox"/>	
Categorical Exclusion Documentation (worksheet)	<i>mm/yyyy</i>	<input type="checkbox"/>	
Categorical Exclusion Documentation (worksheet)	<i>mm/yyyy</i>	<input type="checkbox"/>	
Categorical Exclusion Documentation (worksheet)	<i>mm/yyyy</i>	<input type="checkbox"/>	
Categorical Exclusion Documentation (worksheet)	<i>mm/yyyy</i>	<input type="checkbox"/>	
Categorical Exclusion Documentation (worksheet)	<i>mm/yyyy</i>	<input type="checkbox"/>	

C. Corridor Service Overview

Respond to the following questions to help put this application into the context of the long-term vision and related work for the HSIPR corridor service.

(1) Provide a brief narrative explaining how this Service Development Program relates to the long-term vision of the HSIPR corridor.

The Michigan Department of Transportation (MDOT) participated with eight other Midwest states (Indiana, Illinois, Iowa, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin) and Amtrak on the Midwest Regional Rail Initiative (MWRRRI) to develop an enhanced passenger rail system in the Midwest. This work has led to a comprehensive Midwest Regional Rail System (MWRRS) Service Development Plan which provides a long term vision for increased speeds and service frequencies on the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor. Michigan will lead a multi state effort (Indiana, Illinois and Michigan) to complete a Corridor Investment Plan which will include updating the existing MWRRS Service Development Plan for the Chicago-Detroit/Pontiac Corridor and completing a corridor wide environmental document. The Service Development Program (SDP) that has been developed is consistent with the long term plans that have been identified in the overarching MWRRS Service Development Plan for the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor. The SDP is based on existing service frequencies for incremental improvements that have independent utility, and will provide a solid foundation for the development of the Corridor Investment Plan to reach the goals of the MWRRS Service Development Plan.

Current services on the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Corridor include Amtrak's Wolverine service (Chicago-Detroit/Pontiac) at 3 round trips per day and Michigan's state supported Amtrak Blue Water service (Chicago-Port Huron) at one round trip per day. The Blue Water service enters and exits the corridor in Battle Creek. This corridor is 304 miles long and travels through 3 states (Illinois, Indiana, and Michigan). Corridor ownership includes 4 railroads (Norfolk Southern Railway (NS), Amtrak, Conrail Shared Assets Operations (CSAO), and Grand Trunk Western Railroad, Inc. (CN).

The partnership of FRA, Amtrak, General Electric Transportation Systems, and MDOT are developing the western end of the corridor in Michigan between Kalamazoo and New Buffalo as part of FRA's Next Generation High Speed Rail Program - Incremental Train Control System (ITCS) Project. There have been investments of over \$40 million in infrastructure, grade crossings enhancements/closures, and the ITCS. Current intercity passenger rail speeds on the corridor, between Kalamazoo and New Buffalo, reach 95 mph. In March 2010, FRA issued conditional approval to increase speeds in this segment to 110 mph. Amtrak expects those conditions to be met late this year or early in 2011.

There are also several related transportation projects that are being conducted within the corridor. Each of these projects has independent utility but have a positive cumulative impact on service benefits for the corridor. These related transportation projects include:

1. Amtrak was awarded ARRA funding (\$14.5M) to expand ITCS and fiber optics from New Buffalo to Porter, Indiana, which will allow train speeds up to 110 mph over the entire Amtrak ownership (approximately 98 miles Porter, Indiana to Kalamazoo, Michigan). Amtrak's work in this segment is expected to be completed in 2012.
2. Illinois was selected for funding from FRA's 2009 HSIPR ARRA grant Program (\$133M) to complete the Englewood Flyover.
3. Indiana was also selected for funding from FRA's 2009 HSIPR ARRA grant Program (\$71M) to complete the Indiana Gateway Projects.
4. Michigan was also selected for funding from FRA's 2009 HSIPR ARRA grant Program (\$40M) to complete construction of two new stations (Troy/Birmingham and Dearborn) and renovate the station at Battle Creek.

Other related transportation projects include requests for funding under FRA's 2010 HSIPR Grant Program including

1. West Detroit Connection Track Project.
2. CN enhancements from Pontiac to Milwaukee Junction.
3. Track 1B for a new Ann Arbor Station.
4. Track 1B to complete preliminary engineering on the Milwaukee Junction/Beaubien Interlocking External Project. This SDP will provide the funding necessary to bring a long term solution to stability on the federally designated Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor. Without this funding, the corridor segment between Kalamazoo (MP 143.2) and

Dearborn (MP 7.5 Townline) will continue to degrade and become less reliable for intercity passenger service. No action would offset or completely lose all of the benefits from past (\$100,000,000) and present (\$258,500,000) investments.

NS has indicated to both Amtrak and MDOT that their freight business on this corridor is down and they can no longer justify maintaining track standards to 79 mph on their ownership between Kalamazoo MP (143.2) and Dearborn (MP 7.5 Townline). NS has indicated that their existing freight business only requires track standards to be 25 mph. As a result, NS plans to down grade this track over the next few years by issuing slow orders. The initial slow order was issued on July 1, 2010 reducing passenger speeds from 79 mph to 60 mph on 41.2 miles of track in this segment. NS has indicated that additional slow orders are expected and it will gradually expand 60 mph passenger speeds to the entire segment (135 miles) by the end of 2012.

On January 29, 2010 Amtrak announced that it would perform a high-speed rail improvement study, with assistance from NS, focused on determining what infrastructure upgrades are needed to provide 110 mph train service on the NS owned rail corridor between Kalamazoo and Dearborn. This study was completed in June 2010 and the results have been used in preparing a Service Development Program (SDP) and this application. A summary of the study along with the detailed technical data has been included with this application as supporting documentation.

Based on Amtrak's phased study for this segment of the corridor, the SDP will initially bring long term stability to the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor by completing an ownership arrangement with NS for their trackage between Kalamazoo MP 143.2 and Dearborn (MP 7.5 Townline) and making the necessary improvements to bring the infrastructure to a state of good repair. This ownership arrangement will be subject to approval by the National Transportation Safety Board (NTSB). This would include the rail segments east of Kalamazoo to sustain existing intercity passenger rail service frequencies and speeds initially up to allowable speeds of 79 mph. This positions the Kalamazoo-Dearborn segment to have speeds approved for 110mph expanding on the current work being done by Amtrak to increase speeds up to 110 mph between Porter, Indiana and Kalamazoo. Expanding this work to the east (Kalamazoo to Dearborn) will provide for passenger speed up to 110 mph for 235 miles (77%) of the 304 mile corridor.

(2) List other HSIPR projects or activities related to this Service Development Program application. This includes any pending or selected planning, PE/NEPA, FD/Construction, and other Service Development Program activities or projects. The purpose of this list is to identify overlapping or complementary applications, programs, or projects. Click on the drop-down menu to select the FRA solicitation and to indicate if the project was previously selected.

	Project, Activity, or Service Development Program Name ¹	FRA Solicitation	Federal Funding Request (in thousands of dollars)	Status	Does This Project Include Activities That Overlap with Any Projects Included in This Service Development Plan Application?
1	Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor Program	FY10 Planning	\$ 3,200.00	Announcement Pending	Yes
2	West Detroit Connection Track Project	FY09 Residual	\$ 7,913.00	Announcement Pending	No
3	MI:CHI HUB:CHI-DET:STATIONS-BCREEK	Track 1a	\$ 3,620.00	Selected	No
4	MI:CHI HUB:CHI-DET:STATIONS-DEARBORN	Track 1a	\$ 28,204.00	Selected	No

¹ Please detail each activity for which HSIPR funding is being requested, or which is directly related to the Corridor Service. For example, if a related Track 1a Project application was already submitted, that application should be separately listed below. If the project covered by that same 1a application is also being submitted as an element of a Track 2 Program, indicate the program when listing the project.

5	MI:CHI HUB:CHI-DET:STATIONS-TROY	Track 1a	\$ 8,485.00	Selected	No
6	IN-Indiana Gateway	Track 1a	\$ 68,720.00	Selected	No
7	IL-CREATE-P1	Track 1a	\$ 133,000.00	Selected	No
8	Amtrak ITCS/Fiber Optics Extension (Porter, Indiana to New Buffalo, Michigan)	Track 1a	\$ 4,500.00	Awarded	No
9	MI-CHICAGO HUB-CN ENHANCEMENTS MILWAUKEE JUNCTION TO PONTIAC	Track 1a	\$ 10,926.00	Announcement Pending	No
10	MI-WEST DETROIT JUNCTION CONNECTION TRACK	Track 1a	\$ 14,660.00	Announcement Pending	No
11	MI-CHICAGO HUB-ANN ARBOR STATION	Track 1b	\$ 6,500.00	Announcement Pending	No
12		Track 1a	\$	Announcement Pending	No
13		Track 1a	\$	Announcement Pending	Yes
14		Track 1a	\$	Announcement Pending	Yes
15		Track 1a	\$	Announcement Pending	Yes
17		Track 1a	\$	Announcement Pending	Yes
18		Track 1a	\$	Announcement Pending	Yes
19		Track 1a	\$	Announcement Pending	Yes

D. Executive Summary

Answer the following questions about the proposed program.

(1) Provide a Service Development Program name. The Service Development Program name must consist of the following elements, each separated by a hyphen: (1) the State abbreviation; (2) the route or corridor name; and (3) a Service Development Program descriptor that will concisely identify the program’s focus (e.g., HI-Fast Corridor-Main Stem).

MI-CHICAGO HUB-KALAMAZOO_DEARBORN

(2) Indicate the appropriate corridor name where the Service Development Program is located and identify the start and end points as well as major integral cities along the route.

This Service Development Program (SDP) is located within the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor. Specifically the SDP is located between the Kalamazoo, Michigan (MP 143.2) and Dearborn, Michigan (CP Townline MP 7.5). This segment of the corridor serves station communities in Kalamazoo, Battle Creek, Albion, Jackson, Ann Arbor, and Dearborn.

(3) Indicate the anticipated duration, in months, for this Service Development Program (e.g., 36).

Number of Months: 24

(4) Indicate the anticipated funding information for the Service Development Program below. This information must match the SF-424 documents, and dollar figures must be rounded to the nearest whole dollar. When the non-Federal match percentage is calculated, it must meet or exceed 20 percent of the total project cost.

Federal Funding Request	Non-Federal Match Amount	Total Project Cost	Non-Federal Match Percentage of Total
\$ 308,277,159	\$ 77,069,290	\$ 385,346,449	20 %

(5) Indicate the source, amount, and percentage of matching funds for the Service Development Program provided in Section C.4. Identify supporting documentation that will allow FRA to verify the funding source. Click on the prepopulated fields to select the appropriate response from the list of choices. Also, list the percentage of the total project cost represented by each non-Federal funding source.

Non-Federal Funding Sources	New or Existing Funding Source?	Status of Funding ²	Type of Funds	Dollar Amount	% of Total Project Cost	Describe Any Supporting Documentation to Help FRA Verify Funding Source
MDOT	Existing	Committed	Cash	\$ 38,534,645	10 %	Michigan has the statutory legal authority to build and oversee rail capital/operating investment through the State Transportation Preservation Act of 1976, Act 295 of 1976, [MCL 474.51 - MCL

² Reference Notes: 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.



						474.56] and Act 51 of 1951.
NS	Existing	Committed	In-Kind	\$ 38,534,645	10 %	Appraisal (difference between appraisal vs reduction in purchase price)
	New	Committed	Cash	\$	%	
	New	Committed	Cash	\$	%	
	New	Committed	Cash	\$	%	

(6) Provide a project abstract outlining the Service Development Program. Briefly summarize the program in 4-6 sentences. Capture the milestones, outcomes, and anticipated benefits that will result from implementing the Service Development Program.

NS has indicated to both Amtrak and MDOT that their freight business cannot justify the need to maintain track conditions for speeds greater than 25 mph. Beginning July 1, 2010 NS issued slow orders on 41.2 miles of this segment limiting passenger rail speeds to 60 mph.

On January 29, 2010 Amtrak announced that it would perform a high-speed rail improvement study, with assistance from NS, focused on determining what infrastructure upgrades are needed to provide 110 mph train service on the NS owned rail corridor between Kalamazoo (MP 143.2) and Dearborn (MP 7.5 Townline). This study was completed in June 2010 and the results have been used in preparing the SDP and this application.

Based on Amtrak's phased study, this SDP will initially bring long term stability to the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor by completing an ownership arrangement with NS, subject to STB approval in accordance with 49 CFR Part 24 and Federal Transit Administration's FTA C 5010.1D for trackage between Kalamazoo (MP 143.2) and Dearborn (MP 7.5 Townline). This will also include bringing the segment of the corridor to a state of good repair by making the necessary capital improvements to the infrastructure, renewing the existing signal system and adding positive train control to rail segments east of Kalamazoo that will sustain existing intercity passenger rail service frequencies and speeds (up to 79 mph) while positioning the corridor to expand on the high speed work that has been done on Amtrak's 98 miles of ownership from Porter, Indiana to Kalamazoo east to Dearborn including passenger speeds to 110 mph. Future increased frequencies will be developed in a multi-state planning study lead by MDOT for a Corridor Investment Plan over the next 12 to 18 months.

The SDP will build on the work that is being accomplished on the western end of the corridor (Porter, Indiana to New Buffalo, MI). Expanding this work to the east (Kalamazoo to Dearborn) will position the corridor for passenger speeds up to 110 mph for 77% of the 304 mile corridor (Porter, Indiana to Dearborn, Michigan). The SDP is expected to realize an average train speed increase of 21 mph (from 64mph to 85 mph) over this segment which will result in 30 minutes in times savings. There is also the expectation that the improvements will provide an additional reduction in delay time by 12 minutes as reported by Amtrak.

(7) Provide a Service Development Program narrative. Include the elements below when describing the main features and characteristics of the Service Development Program. Please limit the response to 12,000 characters.

- How this Service Development Program is organized into phases or groups of component projects.³ Include a description of the activities and the measurable outcomes of each phase or group of activities;
- The location(s) of the Service Development Program's component projects including name of rail line(s), State(s), and relevant jurisdiction(s) (include a map in supporting documentation);
- Substantive activities of the Service Development Program (e.g., specific improvements intended);
- Service(s) that would benefit from the Service Development Program, the stations that would be served, and the State(s) where the service operates;
- Anticipated service design of the corridor or route with specific attention to any important changes that the Service Development Program would bring to the fleet plan, schedules, classes of service, fare policies, service quality standards, train and station amenities, etc.;

³ The work to complete Service Development Programs can be organized into individual phases. Phases should produce meaningful and measurable service outcomes (e.g., trip time, frequency, or operational reliability) upon completion. Each phase is made up of one or more component projects that are necessary to deliver the outcome(s).

- How the Service Development Program was identified through a planning process and how the Service Development Program is consistent with an overall plan for developing high-speed or intercity passenger rail service, such as a State Rail Plan or plans of local/regional metropolitan planning organizations;
- How the Service Development Program will fulfill a specific purpose and need in a cost-effective manner;
- Any use of new or innovative technologies;
- Any use of railroad assets or rights-of-way, and potential use of public lands and property;
- Other rail services, such as commuter rail and freight rail that will make use of, or otherwise be affected by, the Service Development Program; and
- Any PE/NEPA activities to be undertaken as part of the Service Development Program, including but not limited to design studies and resulting program documents, the approach to agency and public involvement, permitting actions, and other key activities and objectives of this PE/NEPA work.

• The components of the SDP are located on the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor, within Michigan, specifically on NS ownership between Kalamazoo, Michigan MP 143.2 and Dearborn, Michigan MP 7.5. This segment of the corridor traverses through the counties of Kalamazoo, Calhoun, Jackson, Washtenaw and Wayne while servicing the Michigan cities of Kalamazoo, Battle Creek, Albion, Jackson, Ann Arbor, and Dearborn. Please reference Segments of Ownership Map in supporting documentation.

• The work plan for this SDP prioritizes the ownership arrangement prior to proceeding with infrastructure improvements. Based on this priority, MDOT would be the owner and signed preliminary engineering drawings with a host railroad partner would not be necessary. The preliminary engineering drawings are based from Amtrak's high speed rail study conducted in conjunction with Norfolk Southern Railway. Both Amtrak and NS have reviewed costs estimates and the difference is considered insignificant in regard to the total project costs. Intended improvements in the SDP include:

Phase 1 - Complete an ownership arrangement for the NS segment (between Kalamazoo and Dearborn). This will provide long term stability for future service and investments of HSIPR funding in the corridor. This transaction will be handled in accordance with 49 CFR Part 24 and Federal Transit Administration's FTA C 5010.1D for trackage between Kalamazoo (MP 143.2) and Dearborn (MP 7.5 Townline). Also this transaction is subject to subject to STB approval. There is an existing signed memorandum of understanding (MOU) between NS and MDOT. This MOU has been included with this application as supporting documentation. In addition, MDOT and NS are making significant progress in negotiations for an ownership arrangement. As a result of this progress both MDOT and NS are reaffirming the original MOU and indicating a desire to move negotiations from lease/purchase to purchase arrangement. This supplemental MOU has been included as supporting documentation to this application. An initial appraisal was completed on this property back in November 2009. This appraisal has been used to provide an initial estimate for this application. Both parties are familiar with these policies and recognize that this appraisal will need to be refreshed in accordance the previously mentioned policies as negotiations progress. This previous work will serve as the basis to continue negotiations and complete this ownership arrangement. MDOT expects the following outcomes from this acquisition:

1. The freight railroad has officially indicated that it will no longer maintain the corridor for passenger rail operations and public ownership is required remedy this problem for a key corridor on the nation's passenger rail network. Further degradation would only further degrade passenger services.
2. Ownership would insure the long term availability of the corridor for high speed intercity passenger rail operations.
3. Eliminating the uncertainty and delay associated with freight rail negotiations, state ownership and control will make it much easier to adjust current passenger operations and add additional frequencies, including increase speeds as a part of the SDP and consistent with the MWRRS Service Development Plan,
4. Public ownership and control of the corridor will insure that priority is given to the dispatching of passenger trains as required by federal law.
5. Public ownership will serve to confirm that public investment will be clearly associated with public benefits.
6. Public ownership has the potential to reduce long term infrastructure investment costs by eliminating or reducing "arms length" negotiations with the freight railroad.

Phase 2 - Completion of Final Design and Construction activities for the capital improvements included in the SDP. Amtrak in conjunction with NS has conducted a detailed high speed rail study of this segment of the corridor which includes a plan to restore it to a state of good repair by completing the following improvements:

1. Complete final design including construction, maintenance, operating and service benefit agreements.
2. Investments in track rehabilitation including: tie and surface line; switch tie renewal; rebuild highway grade crossings; resurface curves; curve modifications; and patch rail installation.

3. Investments in technology including signals, train control, highway warning devices: installation of positive train control; renew signal system; install fiber optics and extend crossing starts.

MDOT expects the following outcomes from these improvements based on average line speed:

1. Initially restore intercity passenger speeds to 79 mph which allows for reductions in travel times by up to 12 minutes between Kalamazoo and Dearborn.
2. An additional travel time reduction of up to 18 minutes will be realized once top speeds are approved for 110 mph.
3. These improvements are expected to increase service reliability by at least 12 minutes per train. Amtrak has reported to MDOT that their trains averaged 19 minutes of delay per train in the time period from July 1, 2009 – June 30, 2010 between Kalamazoo and Dearborn. 61.4% of the delays were attributed to the following four categories:

Passenger train interference	23.1%
Communications & signals	17.5%
Slow Orders (Perm & Temp.)	11.3%
Freight train interference	9.5%

Therefore, it is assumed that of the 19 minutes in average delays as reported by Amtrak, the aforementioned improvements will reduce the average delay by up to 12 (11.66) minutes per train. The signal renewal program and installation of ITCS will eliminate the communications and signal delays, as well as, increase capacity and reduce headway times. As a result, the interference by both passenger and freight trains should be reduced substantially. It is further expected that these improvements will also have a positive effect on the remaining 39.6% of the delay time as the on-time performance percentages increase due to the implementation of the improvements.

4. Based on these expectations, annual minutes of delay reduction for intercity passenger service (6 trains for the Wolverine service and 2 trains for the Blue Water service between Kalamazoo and Battle Creek) on this segment of the corridor would be up to 27,740 minutes.

Specific locations for these capital improvements are described and shown on the preliminary engineering drawings and the work units used in estimating the costs are provided in the Amtrak Study Summary. Both of these documents are provided under supporting documentation.

- Services that benefit from this SDP on the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Corridor include Amtrak's Wolverine service (Chicago-Detroit /Pontiac) at 3 round trips per day and Amtrak's Blue Water service (Chicago-Port Huron) at one round trip per day. The Blue Water service enters and exits the corridor in Battle Creek. The SDP improvements between Kalamazoo and Battle Creek benefit the Blue Water service. Both of these services operate in Michigan, Indiana, and Illinois. While the counties and station communities within the SDP boundaries are direct beneficiaries from the improvements, all stations and communities served along both the Wolverine Service and Blue Water Service will benefit from long term stability, reduced travel times, more reliable service, and the increased safety provided through the improvements in this SDP. In addition, these benefits will be realized by rail passengers when connecting with other services through the Chicago Hub on the MWRRS. Investments for improvements in other areas of the corridor will benefit from the long term stability and service reliability provided with the SDP. Stations on the Wolverine Service include the cities of Pontiac, Birmingham, Royal Oak, Detroit, Dearborn, Ann Arbor, Jackson, Albion, Battle Creek, Kalamazoo, Dowagiac, Niles, New Buffalo, Michigan City, Hammond/Whiting, and Chicago. Stations on the Blue Water Service include the cities of Port Huron, Lapeer, Flint, Durand, East Lansing, Battle Creek, Kalamazoo, Dowagiac, Niles, New Buffalo, and Chicago.
- The existing service design on the corridor will remain. Service frequencies will not be changed.
- Since 1995, MDOT has participated with eight other Midwest states (Indiana, Illinois, Iowa, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin) and Amtrak in the Midwest Regional Rail Initiative (MWRRI) to develop an enhanced passenger rail system in the Midwest. FRA has also participated from time to time. This work has led to a comprehensive MWRRS Service Development Plan which provides a long term vision for increased speeds and service frequencies on the Chicago Hub (Detroit/Pontiac) High Speed Rail Corridor. In addition, Michigan will lead a multi-state effort (Indiana, Illinois and Michigan) to complete a Corridor Investment Plan which will include updating the existing MWRRS Service Development Plan for the Chicago-Detroit/Pontiac Corridor and complete a corridor wide environmental document (Tier 1 EIS). All of the work proposed in this SDP is consistent with the Development of the MWRRS. Also, all of the improvements proposed in this SDP are consistent with MDOT's Commission Policy under Resolution 2004-1 adopted February 26, 2004. This document has been included as supporting documentation.
- The Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor is one of the Nation's Federally Designated High-

Speed Rail Corridors and is 304 miles long. This SDP includes a long term solution to bring stability by negotiating an ownership arrangement (subject to STB approval) and constructing capital improvements which initially restore passenger speeds to 79 mph between Kalamazoo and Dearborn and allow for future increases in train speeds to 110 mph. This segment represents 45% or 135 miles of the 304 mile corridor and is seen as an extension of Amtrak's ownership between Kalamazoo and Porter, Indiana (32%/98 miles). This investment comes at a time when intercity passenger rail ridership and revenues are experiencing record growth. The long term vision is for growth to continue.

• This segment of the corridor has very limited freight traffic. The improvements included in this SDP would also benefit any future service increases in intercity passenger rail and any new commuter rail services.

• A Service NEPA Environmental Assessment has been included with this application.

(8) Indicate the type of expected capital investments included in the Service Development Program. Check all that apply.

- | | |
|---|--|
| <input type="checkbox"/> New rail lines | <input type="checkbox"/> Rolling stock refurbishments |
| <input type="checkbox"/> Additional main-line tracks | <input type="checkbox"/> Rolling stock acquisition |
| <input checked="" type="checkbox"/> Structures (bridges, tunnels, etc.) | <input type="checkbox"/> Support facilities (yards, shops, administrative buildings) |
| <input checked="" type="checkbox"/> Track rehabilitation | <input type="checkbox"/> Grade crossing improvements |
| <input type="checkbox"/> Major interlockings | <input type="checkbox"/> Electric traction |
| <input type="checkbox"/> Station(s) | <input checked="" type="checkbox"/> Other (please describe): Acquisition |
| <input checked="" type="checkbox"/> Communication, signaling, and control | |

(9) Indicate the anticipated service objectives for the Service Development Program for which you are applying. Check all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Additional service frequencies | <input checked="" type="checkbox"/> Increases in operational reliability |
| <input checked="" type="checkbox"/> Improved on-time performance of passenger trains | <input type="checkbox"/> New service on new route |
| <input type="checkbox"/> Reroute existing service | <input checked="" type="checkbox"/> Service quality improvements |
| <input type="checkbox"/> New service on existing IPR route | <input checked="" type="checkbox"/> Increased average speeds/shorter trip times |
| <input checked="" type="checkbox"/> Increases in ridership | <input type="checkbox"/> Other (please describe): |

Briefly clarify your response(s) if needed:

(10) If appropriate, subdivide the Service Development Program into phases (groups of projects) and identify each phase on separate rows of the table.⁴ Detail the service benefits to be realized after completion of each phase on the corresponding row. At the bottom of the table, provide the anticipated service benefits upon completion of the entire Service Development Program. Use as many rows as necessary; if the Service Development Program cannot be subdivided, summarize the information for the entire Service Development Program in the first row.

Phase	Title ⁵	Frequencies ⁶		Scheduled Trip Time (in minutes)		Average Speed (mph)		Top Speed (mph)		Reliability – Provide Either On-Time Performance Percentage or Delay Minutes	
		Current	Future	Current	Future	Current	Future	Current	Future	Current	Future
I.	Completing an Ownership Arrangement	-	-	-	-	-	-	-	-	-	-
II.	Final Design and Construction of Capital Improvements	3	3	157	145	64	72	79	79	19	7
III.	Proposed increase to 110 mph	3	3	145	127	72	85	79	110		
IV.											
V.											
VI.											
VII.											
VIII.											
Provide the Cumulative Service Outcome <i>(Aggregate Benefits of all Phases)</i>		3	3	157	127	64	85	79	110	19	7

⁴ The work to complete Service Development Programs can be organized into individual phases. Each phase should produce meaningful and measurable service outcomes (e.g., trip time, frequency, and/or operational reliability) upon completion. Each phase is made up of one or more component projects that are necessary to deliver the outcome(s).

⁵ Title should be a brief descriptive name for the phase.

⁶ Frequency is measured in daily one-way train operations. One daily round-trip operation should be counted as two daily one-way train operations.

(11) Provide information on the component projects within each phase of the Service Development Program identified in Section D.10 above. For each phase, please list all the projects in the sequence they will be completed. This section is unlocked- the applicant can add rows as needed for additional projects and phases.

PHASE I.		Completing an Ownership Arrangement
Project Name	Short Project Description	Project Cost (in thousands of dollars)
1	Ownership Arrangement	Negotiate and acquire the segment between Kalamazoo MP 143.2 and Dearborn MP 7.5
2		
3		
4		
5		
Phase I. Total Cost		\$ 209,000

PHASE II.		Final Design and Construction of Capital Improvements
Project Name	Short Project Description	Project Cost (in thousands of dollars)
1	Design/Professional Services	Extend Crossing Starts
2	Investments - Track Rehabilitation	Tie and Surface Line; Switch Tie Renewal; Rebuild Highway Crossings; Resurface Curves; Curve Modifications; Install Patch Rail
3	Investments – Train Control, Highway Warning Devices	Initial Installatiion of PTC; Renew Signal System; Install Fiber Optic Communication; Extend Crossing Starts
4		
5		
Phase II. Total Cost		\$ 176,346

PHASE III.		<i>[Insert Title from Section D.10]</i>
Project Name	Short Project Description	Project Cost (in thousands of dollars)
1		\$ 000
2		\$ 000
3		\$ 000
4		\$ 000
5		\$ 000
Phase III. Total Cost		\$ 000

PHASE IV.		<i>[Insert Title from Section D.10]</i>
Project Name	Short Project Description	Project Cost (in thousands of dollars)
1		\$ 000
2		\$ 000

3			\$ 000
4			\$ 000
5			\$ 000
Phase IV. Total Cost			\$ 000

E. Response to Evaluation Criteria

Provide a separate response to the following evaluation criteria to demonstrate how the proposed Service Development Program will achieve each criterion.

(1a) Potential Transportation Benefits

Demonstrate the potential of the proposed Service Development Program investment to achieve transportation benefits in a cost-effective manner:

- Supporting the development of intercity high-speed rail service;
- Generating improvements to existing high-speed and intercity passenger rail service, as reflected by estimated increases in ridership (as measured in passenger miles), increases in operational reliability (as measured in reductions in delays), 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 intercity passenger rail network, including integration with existing intercity passenger rail services, allowance for and support of future network expansion, and promotion of technical interoperability and standardization (including standardizing operations, equipment, and signaling);
- Encouragement of intermodal connectivity and integration through provision of direct, efficient transfers among intercity transportation and local transit networks at train stations, including connections at airports, bus terminals, subway stations, ferry ports, and other modes of transportation;
- Enhancing intercity travel options;
- Ensuring a state of good repair of key intercity passenger rail assets;
- Promoting standardized equipment (or rolling stock), signaling, communications, and power;
- Improved freight or commuter rail operations in relation to proportional cost-sharing (including donated property) by other benefiting rail users;
- Equitable financial participation in the project's financing, including, but not limited to, consideration of donated property interests or services; financial contributions by freight and commuter rail carriers commensurate with the benefit expected to their operations; and financial commitments from host railroads, non-Federal governmental entities, nongovernmental entities, and others;
- 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.

The Risk Management Plan, Project Management Plan, Financial Plan, MWRRS Service Development Plan, MI: Chicago Hub: Kalamazoo-Dearborn Service Development Program (SDP), and the Amtrak Study Summary support this application in greater detail and these documents have been included with this application as supporting documentation.

The SDP has been prepared in concert with the overarching MWRRS Service Development Plan that justifies the initial investment and related benefits to bring long term stability and a state of good repair to the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor, specifically in the segment currently owned by Norfolk Southern Railway from Kalamazoo MP 143.2 to Dearborn MP 7.5. The SDP will bring long term stability by completing an ownership arrangement (subject to STB approval) and a state of good repair through capital improvements to increase service reliability, decrease travel times by initially restoring passenger speeds up to 79 mph, increase safety by renewing the signal system along with adding positive train control which will allow for future passenger speeds to reach 110 mph, and position the corridor for future investment. Future investment decisions will be made as MDOT leads a multi-state effort to complete a Corridor Investment Plan. This will include revising the current MWRRS Service Development Plan and completing a Corridor Wide Environmental Document for the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor.

Portions of this corridor have been developed under FRA's Next Generation High Speed Rail Program Incremental Train Control System (ITCS) Demonstration Project. Amtrak's current intercity passenger rail service is running up to 95 mph between Kalamazoo and New Buffalo as a result of this investment in ITCS. In March 2010, FRA conditionally approved

this same area to increase speeds to 110 mph. Amtrak is expected to meet these conditions by February 2011. In addition, FRA has provided ARRA funds to Amtrak to extend the ITCS from New Buffalo to Porter, Indiana. This work is expected to be completed by Amtrak in 2012. The SDP will build on the work that has been accomplished between Porter, Indiana and Kalamazoo, Michigan (Amtrak's ownership of approximately 98 miles) by extending ITCS (positive train control) coverage on the corridor from Kalamazoo east to Dearborn, an additional 135 miles.

The SDP improvements are expected to produce the following results to existing intercity passenger service:

1. Long term stabilization for this segment of the corridor. NS has indicated that their freight business needs do not justify maintaining the track for 79 mph service on their corridor ownership between Kalamazoo MP 143.2 and Dearborn MP 7.5. NS has stated that their freight need for track maintenance is 25 mph. They plan to allow the corridor to degrade over time and track speeds will be reduced by issuing a number of slow orders along this segment. NS issued the first slow order on July 1, 2010 for 41.2 miles of track, in this segment, reducing passenger speeds from 79 mph to 60 mph. They have indicated that this will continue and by the end of 2012, speeds will have been reduced on the entire 135 mile segment from 79 mph to 60 mph for passenger train travel. Additional reductions in speeds can be expected to follow after that. The completion of an ownership arrangement will bring long term stability to this segment of the corridor by ensuring that long term investments, both past and present, in intercity passenger rail will not be made. This will also help ensure that service benefits from past and present investments in the entire corridor, will not be lost.

2. Capital improvements to bring this segment of the corridor to a state of good repair by:

a. Restoring passenger speeds to 79 mph on the corridor will initially reduce the trip time by 12 minutes. An additional travel time reduction of up to 18 minutes will be realized once top speeds are approved to go to 110 mph.

b. Increasing reliability/safety – Renewing the signal system and installing ITCS will increase reliability and safety on this segment. Amtrak’s annual On-Time Performance Reports and Minutes of Delay statistics for Amtrak’s operations between Chicago and Detroit were analyzed for six trains over the period 2004-2006. Amtrak’s on-time performance was approximately 50%. The reports indicate that the top reasons for delay were freight train interference, passenger train interference, and cable and signal (C&S) work due to defects. Specifically, Amtrak has reported that their trains averaged 19 minutes of delay per train in the time period from July 1, 2009 – June 30, 2010 between Kalamazoo and Dearborn.

61.4% of the delays were attributed to the following four categories:

Passenger train interference	23.1%
Communications & signals	17.5%
Slow Orders (Perm & Temp.)	11.3%
Freight train interference	9.5%

As part of the SDP of this segment, there is funding included for track infrastructure and signal improvements, the most important being the return of track speeds to 79 mph, renewing of the signal system, and installation of positive train control (ITCS). The infrastructure improvements will remove all the temporary track speed restrictions. The signal renewal program and installation of ITCS will eliminate the communications and signal delays, as well as, increase capacity and reduce headway times. As a result, the interference by both passenger and freight trains should be reduced substantially. Therefore, it is assumed that of the 19 minutes in average delays as reported by Amtrak, the aforementioned improvements will reduce the average delay by up to 12 (11.66) minutes per train. It is further expected that these improvements will also have a positive effect on the remaining 39.6% of the delay time as the on-time performance percentages increase due to the implementation of the improvements. An implemented ownership arrangement will provide greater control of train movements in this area through dispatching.

Annual minutes of delay reduction for intercity passenger service (6 trains for the Wolverine service and 2 trains for the Blue Water service between Kalamazoo and Battle Creek) on this segment of the corridor would be 27,740 minutes.

The overarching MWRRS Service Development Plan has completed a detailed analysis of the potential of connectivity of intercity passenger rail to other modes of transportation. The passenger rail market analysis confirms there is a substantial market for intercity travel between all the cities on the MWRRRI System. In many markets, the MWRRRI System provides a faster, more cost-effective alternative to auto and bus travel. Furthermore, the MWRRRI System provides a more cost-effective means of travel than air travel in many of the smaller urban areas on or near a MWRRRI System corridor. The improvements associated with this SDP are an incremental step in achieving the benefits associated with the full build out of MWRRRI Phase 1.

(1b) Other Public Benefits

Describe the potential and actual contributions the proposed Service Development Program would make toward achieving transportation benefits in a cost-effective manner:

- Environmental quality and energy efficiency and reduction in dependence on foreign oil, including 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;

- Promoting interconnected livable communities, including complementing local or state efforts to concentrate higher-density, mixed-use, development in areas proximate to multi-modal transportation options (including intercity passenger rail stations);
- Improving historic transportation facilities; and
- Creating jobs and stimulating the economy. Although this solicitation is not funded by the Recovery Act, these goals remain a top priority of this Administration. Therefore, Service Development Program applications will be evaluated on the extent to which the project is expected to quickly create and preserve jobs and stimulate rapid increases in economic activity, particularly jobs and activity that benefit economically distressed areas, as defined by section 301 of the Public Works and Economic Development Act of 1965, as amended (42 U.S.C. 3161) (“Economically Distressed Areas”).

The Risk Management Plan, Project Management Plan, Financial Plan, MWRRS Service Development Plan, MI: Chicago Hub: Kalamazoo-Dearborn Service Development Program (SDP), and the Amtrak Study Summary support this application in greater detail and these documents have been included with this application as supporting documentation.

This SDP is an incremental step in realizing the benefits of the fully built-out MWRRS.

Economic and Public Benefits have been estimated for Chicago-Detroit/Pontiac, as a share of the overall benefits previously estimated for the fully built-out MWRRS system. Job creation was estimated using Economic Rents methodology in the updated Chapter 11 of the Project Notebook which is included in the MWRRS Service Development Plan. Exhibit 11.23 reported the employment impact, increase in household income, and increase in property value associated with each MWRRS station (see exhibits 9 & 10). These estimates were developed for a fully-built out MWRRS network as envisioned by Phase 7.

It is noted that Chicago Union Station comprises approximately 26% of the total job creation of the Midwest Region; the remaining 74% of job creation occurs in outlying areas. For every 2.8 jobs created in outlying areas, one job is created in downtown Chicago. Job creation for individual corridors was estimated by summing the job creation for the stations along each corridor. Then the corridor’s share of downtown Chicago jobs could be estimated by applying the 1.0:2.8 ratio just described. Using this analysis enables the estimation of productivity-related job creation associated with each corridor segment. From these estimates at full build out for this segment of the corridor including Kalamazoo, Battle Creek, Albion, Jackson, Ann Arbor, and Dearborn is estimated to be 3,300 jobs. The property value impact for the same communities is \$297 million.

As described in Section 11.4 of the Project Notebook, the construction jobs impact (assessed by Input Output RIMS II methodology) is much smaller than the permanent jobs impact. Nonetheless, as shown in Exhibit 11-29, it was estimated to create 152,063 person-years of work, or an average of 15,206 jobs for each year of the assumed 10-year deployment period for the system. This impact on temporary construction jobs has been estimated as each corridor’s pro-rata share of overall MWRRS capital cost.

Michigan's unemployment rates have been higher than the national average since 2002 and the rate has almost doubled in the past two years, from 7.1% in 2007 to 13.2% currently. Virtually any project construction in Michigan will benefit the state and local economy as well as improve commodity flows at national and international levels. Approximately 91% of Michigan's population lives in areas considered economically distressed according to the federal definition, making Michigan one of the states most impacted by the recent recession. Even before the recession, Michigan faced challenging economic realities due to the loss of manufacturing jobs, particularly those related to the collapsing auto industry.

Currently, the statewide average unemployment rate as of June, 2010 was 13.2% which is considerably more than the current national rate of 9.5 (according to Bureau of Labor Statistics seasonally adjusted). The project areas included in this application are located in the Michigan counties of Calhoun, Jackson, Kalamazoo, Washtenaw and Wayne. According to the definition in Section 301 of the Public Works and Economic Development Act of 1965, as amended (42 U.S.C. 3161), all but Kalamazoo and Washtenaw Counties are economically distressed areas as designated by the Federal Highway Administration (http://hepgis.fhwa.dot.gov/hepgis_v2/GeneralInfo/Map.aspx). Wayne County has an unemployment rate of 16%. Unemployment rates in the remaining counties, range from 7.9% to 24.9%. Only five Michigan counties have unemployment rates below the current national average.

Moving forward with construction of this project will contribute significantly to our efforts to rebuild the state and

local economies of Michigan.

The Executive Office of the President, Council of Economic Advisers, issued a memorandum in May 2009 on “Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009.” The memorandum is available at: <http://www.whitehouse.gov/administration/eop/cea/Estimate-of-Job-Creation/>. Table 5 of this memorandum provides a simple rule for estimating job-years created by government spending, which is that \$92,000 of government spending creates one job-year.

Data specific to this SDP yielded the following job creation figures:

Improvement	Number of Job Years
NS Improvements	1713

Environmental benefits of this project and related projects, compared to no build, highway, and airport alternatives include the following:

Decreased energy consumption due to reduced trip times and service delays which leads to:

Reduced air pollutant emissions and improved air quality

Less land required compared to expanding existing highways and airports

Opportunities for transit-oriented land use development

Fewer environmental impacts on sensitive habitats and water resources (floodplains, streams, and wetlands) than highway and airport alternatives.

The public will also benefit from increased safety as a result of installing a new positive train control technology, renewing the existing signal system and upgrading the existing grade crossings.

With anticipation, local communities throughout the corridor are supporting efforts to develop the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor by promoting interconnected livable communities. Within this project segment, there are at least two examples:

1. The new Dearborn Intermodal Facility has been in the planning and preliminary design phase since 2001 and was recently selected to receive just over \$28 million in HSIPR funding during the first round. This project has received extensive input and scrutiny by local, county, regional and state agencies and organizations. Numerous public meetings and workshops have been held over several years to describe the project, site selection, environmental issues, station elements, design options, transit oriented development (TOD) opportunities and improved connectivity for the overall transportation network. The facility itself was sized to meet projections for high speed rail ridership for a 15-20 year planning horizon, and all the track, platform, signals and controls for the station and the Dearborn area have been studied and examined in detail. The project is consistent with both the high speed rail planning for Michigan and local plans for Dearborn and SE Michigan. Dearborn has a working committee for this project that consists of local stakeholders plus the Southeast Michigan Council of Governments (SEMCOG) and the Michigan Department of Transportation (MDOT). Additionally, Dearborn is fully coordinated with SEMCOG and MDOT rail planning groups including Amtrak, federal agencies and freight railroads. Dearborn is the third busiest station in Michigan and has a convenient location and seamless connectivity to other modes of ground and air transportation. The relocated and expanded Dearborn Intermodal Facility will improve efficiency in all respects over the existing aging and deteriorating Dearborn Amtrak Station. Also, since the new facility will be located directly adjacent to the Henry Ford, (a top Michigan tourist attraction), this allows the elimination of their rail flag stop, thereby providing a single stop in Dearborn for all rail service. The project has an anticipated catalytic effect of offering additional and alternative transportation options and providing a transportation nexus point for the community. As has been proven many times across America, active and functional transportation centers increase urban activity, raise property values, spur related development and create nodes of activity that support higher density development and interesting communities. Dearborn has a long and rich history of being a regional employment center for Greater Detroit and its West Downtown District is a well known regional destination. The addition of the intermodal facility to the downtown district will serve to strengthen an already established district and enliven it as a welcoming point to the community. The improvements associated with this project include the new facility and platform, related site and utility infrastructure, parking, storm water management and the restoration of the second track adjacent to the intermodal facility. The facility will consist of a central structure plus a bridge and tower that will link the facility to both tracks and directly to the Henry Ford property across the tracks. The facility and site will be LEED certified and provide a great opportunity for Dearborn to showcase its Dearborn Green initiative on a highly visible site provided

by the Ford Motor Land Development Company for the project.

2. MDOT has provided \$300,000 to Amtrak and the City of Jackson to stabilize their existing historic station and complete a development study which will allow the City to develop a program for the renovation and of the existing historic railroad station to serve as an intermodal transportation center. The study will outline and develop a work plan to renovate the facility, provide functional areas for various travel modes and passenger needs, and for possible ancillary uses such as restaurants and retail services. Nearly \$1 million ARRA Enhancement funding has been awarded to move this project forward and begin the restoration process.

This SDP will not only bring the infrastructure to a state of good repair, but also allow for long term stability which providing the environment that allows communities like Dearborn and Jackson to move these types of projects forward..

(2) Sustainability of Benefits

Identify the likelihood of realizing the proposed Service Development Program's benefits, including:

- The quality of a Financial Plan that analyzes the financial viability of the proposed rail service;
- The quality and reasonableness of revenue and operating and maintenance cost forecasts for the benefiting intercity passenger rail service(s);
- The availability of any required operating financial support, preferably from dedicated funding sources for the benefiting intercity passenger rail service(s);
- The quality and adequacy of project identification and planning;
- The reasonableness of estimates for user and non-user benefits for the project;
- The reasonableness of the operating service plan, including its provisions for protecting the future quality of other services sharing the facilities to be improved;
- The comprehensiveness and sufficiency, at the time of application, of agreements with key partners (including the railroad operating the intercity passenger rail service and infrastructure-owning railroads) that will be involved in the operation of the benefiting intercity passenger rail service, including the commitment of any affected host-rail carrier to ensure the realization of the anticipated benefits, preferably through a commitment by the affected host-rail carrier(s) to an enforceable on-time performance of passenger trains of 80 percent or greater;
- The favorability of the comparison between the level of anticipated benefits and the amount of Federal funding requested; and
- The applicant's contribution of a cost share greater than the required minimum of 20 percent.

The Risk Management Plan, Project Management Plan, Financial Plan, MWRRS Service Development Plan, MI: Chicago Hub: Kalamazoo-Dearborn Service Development Program (SDP), and the Amtrak Study Summary support this application in greater detail and these documents have been included with this application as supporting documentation.

The Financial Management Plan describes MDOT's capability to absorb potential cost overruns, financial shortfalls, or financial responsibility for potential disposition requirements. In addition, Michigan has the statutory legal authority to build and oversee rail capital/operating investment through the State Transportation Preservation Act of 1976, Act 295 of 1976, [MCL 474.51 - MCL 474.56] and Act 51 of 1951. If unforeseen increases to the project should occur, MDOT has the financial resources necessary to fund these expenses as outlined in the plan. Audit results are included in the Financial Plan.

Section 2.4 of the SDP presents revenue, operating and maintenance cost projections in exhibits 7 and 8.

The existing Wolverine service is part of Amtrak's National System Service and currently does not require funding from Michigan to support operations. Michigan provides state funding for the Blue Water service (Chicago-Port Huron) which enters and exits this segment of the corridor at Battle Creek. Michigan has a long history of supporting intercity passenger rail and is currently working with Amtrak and other state partners to implement the requirements of Section 209 of the Passenger Rail Investment and Improvement Act.

MDOT has made annual appropriations committed to the continuous investment of state funds in intercity passenger rail since 1974, with over \$50 million in capital and operating investments since 2002. A subsidy has been provided to Amtrak for the Blue Water Service (Port Huron to Chicago) for 35 over years and for the Pere Marquette (Grand Rapids to Chicago) for over 25 years.

MDOT is exploring alternative approaches to funding these potential future costs through innovative partnerships.

Please review the PPP Funding Approach which has been uploaded as supporting documentation.

Since 1995, MDOT has participated with eight other Midwest states (Indiana, Illinois, Iowa, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin) and Amtrak on the MWRRRI to develop an enhanced passenger rail system in the Midwest. The FRA also participates from time to time. This work has led to a comprehensive MWRRS Service Development Plan which provides a long term vision for increased speeds and service frequencies on the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor. In addition, Michigan will lead a multi state effort (Indiana, Illinois and Michigan) to complete a Corridor Investment Plan which will include updating the existing MWRRS Service Development Plan for the Chicago-Detroit/Pontiac Corridor and completing a corridor wide environmental document (Tier 1 EIS). All of the work proposed in this SDP is consistent with the development of the MWRRS. Also, all of the improvements proposed in this SDP are consistent with MDOT's Commission Policy under Resolution 2004-1 adopted February 26, 2004. This Resolution 2004-1 has been uploaded as supporting documentation.

MDOT and NS have signed a memorandum of understanding for an ownership arrangement for this segment of the corridor. In addition MDOT has received and evaluated an independent appraisal for this same segment. These documents will serve as a basis to complete the ownership arrangement (subject to STB approval) for long term stability of the corridor and capital improvements needed to bring it to a state of good repair.

Both Amtrak and NS have estimated the costs of the improvements. The difference in estimates is minimal. MDOT is confident the capital cost estimates requested in this application are adequate and will meet industry standards.

(3) Project Delivery Approach

Describe the risk associated with delivery of the Service Development Program within budget, on time, and as designed:

- The applicant's financial, legal, and technical capacity to implement the project, including whether the application depends upon receipt of any waiver(s) of Federal railroad safety regulations that have not been obtained;
- The applicant's experience in administering similar grants and projects, including a demonstrated ability to deliver on prior FRA financial assistance programs;
- The soundness and thoroughness of the cost methodologies, assumptions, and estimates for the proposed project;
- The reasonableness of the schedule for project implementation;
- The thoroughness and quality of the Project Management Plan;
- The timing and amount of the project's future noncommitted investments;
- The overall completeness and quality of the application, including the comprehensiveness of its supporting documentation;
- The adequacy of any completed engineering work to assess and manage/mitigate the proposed project's engineering and constructability risks;
- The sufficiency of system safety and security planning;
- The project's progress, at the time of application, towards compliance with environmental protection requirements;
- The readiness of the project to be commenced; and
- The timeliness of project completion and the realization of the project's anticipated benefits.

The Risk Management Plan, Project Management Plan, Financial Plan, MWRRS Service Development Plan, MI: Chicago Hub: Kalamazoo-Dearborn Service Development Program (SDP), and the Amtrak Study Summary support this application in greater detail and these documents have been included with this application as supporting documentation.

MDOT is fluent in railroad laws covering train movement, signalization, hazardous materials and handling of same, track worker protection, railroad employee hours of service and safety protections, and grade crossing safety. MDOT is also familiar with the guidelines and enforcement authority of the FRA, National Transportation Safety Board, FTA and other regulatory bodies, and has experience working with the railroad's larger union organizations (BLE & UTU). These requirements will be followed in work performed by MDOT and will be passed on contractually to sub-recipients when necessary.

Examples of MDOT's experience in similar projects has been provided in F. Technical Components.

MDOT is aware of the good practices of preventive maintenance, engineering-out problem areas in advance of construction, continuous employee training, and conscientious safety and security awareness and reporting.

MDOT is the State Safety Oversight Agency for the Detroit People Mover, and all future rail transit agencies that would initiate commuter, overhead guideway system, or street running operations, not under FRA jurisdiction in Michigan. MDOT is fully compliant with 49 CFR Part 659, Rail Fixed Guideway Systems; State Safety Oversight; Final Rule. MDOT has developed an FTA approved System Safety Program Standard which requires existing and future rail transit agencies to develop System Safety Program Plans and System Security Plans for MDOT's approval. This document can be modified to meet APTA/FRA requirements, including requirements for Collision Hazard Analysis. A copy of Michigan's SSPS has been included with this application as supporting documentation. MDOT is fully capable of conducting internal audits, triennial reviews, and accident investigations. MDOT ensures that the rail transit agency maintains records, files and training reports as prescribed in CFR 49, Part 659.

Michigan has the statutory legal authority to build and oversee rail capital/operating investments through the State Transportation Preservation Act of 1976, Act 295 of 1976, [MCL 474.51 - MCL 474.56] and Act 51 of 1951. If unforeseen increases to the project should occur, MDOT has the financial resources necessary to fund these expenses as outlined in the plan. Audit results are included in the Financial Plan.

Preliminary Engineering Drawings, the results of Amtrak's Study, and NEPA documents have been included as supporting documentation for FRA review.

The SDP has been prepared in concert with the "overarching" MWRRS Service Development Plan that justifies the initial investment and related benefits to bring long term stability and a state of good repair to the Chicago Hub (Chicago-Detroit/Pontiac) High Speed Rail Corridor, specifically in the segment currently owned by Norfolk Southern Railway from Kalamazoo MP 143.2 to Dearborn MP 7.5

MDOT is currently working with a consultant to prepare a State Rail Plan. This work is expected to be completed in the next 12 months.

F. Technical Components

Address the sections below with information on the technical components of the Service Development Program.

(1) Indicate if you are requesting to be considered a “Standard Capital Project” as described in Section 1.3.1 of the NOFA.⁷

- Consider this application to be a “Standard Capital Project.”
- Consider this application to be a “Major Capital Project.”

Explain your response:

1. MDOT has experience implementing similar projects. As an example, the partnership of MDOT, FRA, Amtrak, and General Electric Transportation Systems has worked to implement the Incremental Train Control System through FRA's Next Generation High Speed Rail Program. This technology has received conditional approval from FRA (in March 2010) to raise intercity passenger rail speeds to 110 mph between Kalamazoo and New Buffalo on Amtrak's ownership. Total cost to date on this project is just under \$40 million dollars.

With respect to rail investment management, the State of Michigan, since the mid-1970s, has acquired and managed over 1,000 miles of active rail lines, investing over \$250,000,000 in capital improvements and purchases. The state presently owns and manages approximately 530 miles of rail property, and takes an active role in design and implementation of significant capital improvement projects. The state has dedicated railroad engineering staff in place to plan and implement right-of-way projects to enhance its rail corridors, and the state also has multiple Railroad Safety Inspectors that are well-trained and highly experienced in railroad construction project supervision. Comparable projects managed by internal staff on the state-owned rail network include annual tie and surfacing programs, siding and yard construction, crossing construction, bridge evaluation and repairs, and hands-on supervision of pre-qualified railroad contractors. In addition, the state has its own AREMA-compliant set of standard railroad construction specifications that can be immediately adapted for use in current or future preservation and enhancement projects on the NS railways.

MDOT established a new Office of High Speed Rail and Innovative Project Advancement which consists of a team of experts in rail management, each with their own area of expertise. This office is responsible for promoting and developing the infrastructure needed to support intercity passenger rail, commuter rail and light rail transit services. This office works with contractors, provides project oversight, oversees financial aspects of program development and interacts with stakeholders to ensure the success of all rail projects. Staff members in this office are well-versed in all aspects of project management and have experience in working with rail owners and contractors, stakeholders and federal regulatory agencies.

2. While the total SDP is over \$100 million, the ownership arrangement phase of the SDP is expected to be approximately \$150 million. FRA will have final approval of this transaction. The Final Design / Construction Phase of this project is estimated at just over \$160 million and will be primarily completed under force account work with Norfolk Southern and Amtrak.

3. The capital improvements will initially restore passenger rail speeds to 79 mph on this segment with then increase to 110 mph. Once the Corridor Investment Plan is completed service frequencies and additional speeds increases can be implemented.

4. The technology being used in this SDP is proven. FRA has provided ARRA funding to Amtrak to extend ITCS from New Buffalo to Porter, Indiana. Amtrak is expecting to complete that installation by the end of 2012. In addition, FRA has approved ITCS and provided conditional approval to raises speeds to 110 mph between Kalamazoo and New Buffalo. Amtrak is expected to meet these conditions by early next year.

(2) Indicate the operational independence of the Service Development Program.⁸

- This program is operationally independent. This program is not operationally independent.

Briefly clarify your response:

This SDP provides for completion of an ownership arrangement which will provide long term stability to this segment of the corridor. In addition, completion of the final design/construction activities will allow for the return of passenger rail speed initially to 79 mph in the project area which reduce travel time, increase service reliability and increase safety by renewing the signal system and infrastructure.

⁷ Please note, that administratively, three primary distinctions exist between the Major and Standard Capital Project designation when applied to a Service Development Program: 1) the approach to the environmental review process; 2) FRA's use of a Letter of Intent (LOI) to contingently commit funds to the Service Development Program (as described in Section 2 of the NOFA); and 3) the project delivery tools required and used by FRA in managing the Service Development Program.

(3) Provide Right-of-Way Owner(s) information in the program area. Where railroads currently share ownership, identify the primary owner. Click on the prepopulated fields to select the appropriate response from the list of choices.

Type of Railroad	Railroad Right-of-Way Owner	Route-Miles	Track-Miles	Status of Agreements to Implement Projects
Class 1 Freight	Norfolk Southern Railway	135	169	Preliminary Executed Agreement/MOU
Amtrak				Master Agreement in Place
Amtrak				Master Agreement in Place
Amtrak				Master Agreement in Place
Amtrak				Master Agreement in Place
Amtrak				Master Agreement in Place

(4) Name the Intercity Passenger Rail Operator and provide the status of the agreement. If applicable, provide the status of agreement with the partner that will operate the planned passenger rail service (e.g., Amtrak). Click on the prepopulated field to select the appropriate response from the list of choices.

Name of Operating Partner:	Status of Agreement:
Amtrak	Preliminary executed agreement/MOU

⁸ A Service Development Program is considered to have operational independence if, upon being implemented, it will result in a minimal operating segment of new or substantially improved high-speed or intercity passenger rail service that demonstrates tangible and measurable benefits, even if no additional investments in the same service are made.

(5) Provide information about the existing rail services within the Service Development Program area (e.g., freight, commuter, and intercity passenger). Click on the prepopulated field to select the appropriate response from the list of type of service.

Type of Service	Name of Operator	Top Speed Within Project Boundaries		Number of Route-Miles Within Project Boundaries	Average Number of Daily One-Way Train Operations ⁹ Within Project Boundaries
		Passenger	Freight		
Freight	Norfolk Southern Railway		60	135	8
Intercity Passenger	Amtrak	60		0	8
Freight					
Freight					
Freight					
Freight					
Freight					
Freight					
Freight					
Freight					

(6) Estimate the share of benefits that will be realized by nonintercity rail services and provide the approximate cost share provided by the beneficiary.¹⁰ Click on the prepopulated fields to select the appropriate response from the lists of type of beneficiary, anticipated share of benefits, and approximate cost share. If more than five types of nonintercity 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 Nonintercity Passenger Rail	Expected Share of Benefits	Approximate Cost Share
Other	Less than 50%	0-24%
Other	Less than 50%	0-24%
Other	Less than 50%	0-24%
Other	Less than 50%	0-24%
Other	Less than 50%	0-24%

(7) Describe the rolling stock type. Describe the fleet of locomotives, cars, self-powered cars, and/or train sets that are intended to provide service upon completion of the Service Development Program. Note if the equipment is already owned or needs to be acquired.

Amtrak's existing fleet of rolling stock that is used to service the Midwest includes ITCS equipped P-40 locomotives and Horizon passenger equipment, in a push/pull operation. For both the Wolverine and Blue Water Services locomotives are equipped with ITCS equipment.

⁹ One daily round-trip operation should be counted as two daily one-way train operations.

¹⁰ Benefits include service improvements such as increased speed, on-time performance, improved reliability, and other service quality improvements.

G. Additional Information

Provide a response to the following, as necessary, for your Service Development Program.

(1) Please provide any additional information, comments, or clarifications and indicate the section and question number that you are addressing (e.g., Section A, Question 6). Completing this question is optional.

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

Document Title	Filename	Description and Purpose
MI-Chicago Hub: Kalamazoo-Dearborn Service Development Plan	SDP_Chicago Hub_Kalamazoo-Dearborn HSR Corridor Program_Aug6.pdf	Service Development Program
MWRRS Serivc Development Plan	MWRRS Service Development Plan.pdf	Service Development Plan -Supports SDP as part of planning/policy decision
MI-Chicago Hub: Kalamazoo-Dearborn Project Management Plan	PMP_Chicago Hub_Kalamazoo-Dearborn HSR Corridor Program_Aug6.pdf	Project Management Plan
MI-Chicago Hub: Kalamazoo-Dearborn Financial Plan	FP_Chicago Hub_Kalamazoo-Dearborn HSR Corridor Program_Aug6.pdf	Financial Plan
Service NEPA Environmental Assessment Chicago-Detroit/Pontiac Rail Corridor Improvements	Service NEPA EA Chicago-Detroit-Pontiac.pdf	Support NEPA Requirements
Pontiac-Detroit-Chicago High Speed Rail Corridor CORRIDOR SEGMENTS BY RAILROAD OWNERSHIP	Segments Ownership Map.pdf	Visual of Chicago-Detroit/Pontiac HSR corridor ownership
Michigan State Transportation Commission Resolution 2004-1	Commission Policy Resolution 2004-1	Supports SDP as part of planning/policy decision
HSR Public-Private Partnerships	PPP Funding Approach.pdf	Support states approach to funding services
Email on July 1, 2010 Slow order from NS	NS Speed Restriction HSR Application Kalamazoo - Dearborn.pdf	Verification of Slow order issued July 1, 2010
Memorandum of Understanding Between Michigan DOT and Norfolk Souhern Railway Company for the Chicago-Detroit/Pontiac High Speed Rail Corridor	Norfolk Southern MOU.pdf	MOU between NS and MDOT for an ownership arrangement.
Support Letters	Support Letter.pdf	Letters of support for the SDP
MDOT Passenger Rail Map	MDOT_Passenger Rail Map.pdf	Show Michigan's existing Passenger Rail Service
MI-Chicago Hub: Kalamazoo-Dearborn Project Management Plan	RMP_Chicago Hub_Kalamazoo-Dearborn HSR Corridor Program_Aug6.pdf	Risk Management Plan
AMTRAK ANALYSIS of the	Amtrak Study Summary.pdf	Amtrak Study which supports SDP

RAIL LINE from KALAMAZOO to TOWN LINE		
AIP between Amtrak and MDOT	Amtrak AIP NS Segment.pdf	Railroad Project Sponser Agreements
Michigan System Safety Program Standard	Michigan System Safety Program Standard.pdf	System Safety Program Plan
PE Project Maps	Service_NEPA_EA_Kalamazoo_Dearborn.pdf	Support of PE Requirements
Construction Budget Form 424C	NSIMPROVEMENTS.pdf	424C
Budget Narraitive	NSBUDGET NARRATIVE_1.pdf	Support for 424C form
PE Aerial and Track Charts	3d_13 Dearborn_Kalamazoo_Round 2 NS.pdf	Support PE/NEPA
Reaffirmation Letter	8 6 2010 Reaffirmation Letter NS Michigan.pdf	Support for progress on Ownership Arrangement
MOU Operating & Implementation	8 6 2010 Mem of Agreement Mich NS.pdf	Support for progress on Ownership Arrangement

H. Checklist of Application Materials

Use this section to determine the thoroughness of your Service Development Program application prior to submission.

Documents	Format
1. Application Form	
<input checked="" type="checkbox"/> HSIPR Service Development Program Application Form [This Form]	Form
2. Budget and Schedule Form	
<input checked="" type="checkbox"/> HSIPR Service Development Program Budget and Schedule Form	Form
3. OMB Standard Forms	
<input checked="" type="checkbox"/> SF 424: Application for Federal Assistance	Form
<input checked="" type="checkbox"/> SF 424C: Budget Information-Construction	Form
<input checked="" type="checkbox"/> SF 424D: Assurances-Construction	Form
4. FRA Assurances Document	
<input checked="" type="checkbox"/> FRA Assurances Document (See Section 4.2.4 of the NOFA)	Form
5. Service Development Supporting Documentation	
<input checked="" type="checkbox"/> Service Development Plan (See Section 3.5 of the NOFA)	No Specified Format
<input checked="" type="checkbox"/> NEPA Documentation (See Section 4.2.5 of the NOFA)	No Specified Format
6. Service Delivery Supporting Documentation	
<input checked="" type="checkbox"/> Project Management Plan (See Section 4.2.6 of the NOFA)	No Specified Format
<input checked="" type="checkbox"/> Financial Plan (See Section 4.2.6 of the NOFA)	No Specified Format
<input checked="" type="checkbox"/> System Safety Plan (See Section 4.2.6 of the NOFA)	No Specified Format
<input checked="" type="checkbox"/> Railroad and Project Sponsor Agreements (See Section 4.2.6 of the NOFA)	No Specified Format
7. Optional Supporting Documentation	
<input checked="" type="checkbox"/> Preliminary Engineering (PE) and/or Final Design (FD) Documentation (See Section 4.2.7 of the NOFA)	No Specified Format
<input checked="" type="checkbox"/> Other Relevant and Available Documentation (See Section 4.2.7 of the NOFA)	n/a

PRA Public Protection Statement: Public reporting burden for this information collection is estimated to average 32 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for this information collection is **2130-0583**.