# STATEMENT OF WORK

# [*Name of Corridor*] Corridor Investment Plan

1. **BACKGROUND**

The approximately [*length*]-mile corridor between [*city at one end*] and [*city at other end*] is part of the [*name of corridor*] and is a *federally designated high-speed* rail (HSR) corridor.

On April 1, 2010, the Federal Railroad Administration (FRA) issued a Notice of Funding Availability for the High-Speed Intercity Passenger Rail (HSIPR) Program in the Federal Register. In response, [*state*] Department of Transportation ([*name of*] DOT or Grantee) applied, which the USDOT Secretary of Transportation selected to receive funding through a cooperative agreement to develop a Passenger Rail Corridor Investment Plan (PRCIP) for the Corridor.

Due to the complexity of service development programs, extensive pre-construction preparation is required, including service planning, environmental review, and design and conceptual engineering efforts. The first phase of this process, known as the Planning Phase, is the development of a Passenger Rail Corridor Investment Plan (PRCIP). A PRCIP provides sufficient information to support a future decision to fund and implement a major investment in a passenger rail corridor and is comprised of two components: an environmental analysis of the proposed rail service (Service NEPA), which in the case of the [*name of corridor*] Corridor, will be in the form of an Environmental Impact Statement (EIS) to satisfy National Environmental Policy Act (NEPA) requirements, and a Service Development Plan (SDP).

Together, the Service NEPA and SDP complete the PRCIP, which would provide sufficient information to support a potential future FRA decision to fund and implement a major investment in the [*name of corridor*] Corridor.

For the purposes of this statement of work, the term “Project” means the completion of the Service NEPA and SDP work activities for the construction of the [*name of corridor*] Corridor Program. Also for the purposes of this statement of work the term “Corridor Program” means final design and construction work activities for the construction of the passenger rail corridor.

1. **OBJECTIVE**

The objective of the Project is to produce a PRCIP consisting of a SDP and a EIS for the [*name of corridor*] Corridor Program in compliance with *FRA’s Procedures for Considering Environmental Impacts (64 Federal Register 28545 (May 26, 1999)* and the Council of Environmental Quality’s *(CEQ)* NEPA implementing regulation *(40 CFR §§ 1500-08)*.

1. **PROJECT LOCATION**

The [*name of corridor*] Corridor Program [*insert name of location*], [*describe where it is*] on the [*insert name of rail line*] rail line. To ensure that planning considers the interrelationships of the broader regional rail network, the following segment(s) beyond the [*name of corridor*] Corridor will be considered to the degree necessary to fully inform service development planning and service environmental work for the [*name of corridor*] Corridor:

1. [*name of segment*]
2. [*name of segment*]
3. [*name of segment*]

1. **DESCRIPTION OF WORK**

This statement of work is divided into four major tasks and several subtasks, described in detail below. Task 1 includes early planning. Task 2 includes preliminary service planning and the preparation other technical information to identify and develop preliminary alternatives for the Corridor Program. The deliverables resulting from this phase will be used to perform Task 3, the development of the EIS, and Task 4, the refinement and finalization of the SDP. Tasks will often overlap, require close coordination and will be conducted through an iterative analytical process. The Grantee will perform the tasks in close coordination with FRA and all approvals by FRA must be in writing.

**Task 1: Detailed Project Work Plan**

For this initial task, the Grantee will prepare a detailed Project Work Plan (Work Plan) for Tasks 2, 3, and 4. The Work Plan will describe, in detail, the activities and steps necessary to complete these tasks outlined in this statement of work. The Grantee will describe the level of NEPA EIS proposed (Tier 1 or project) and reflect this in the level of effort for related tasks. The Work Plan shall also include information about the project management approach including team organization, team decision-making, roles and responsibilities and interaction with FRA. In addition, the Work Plan will include the Project schedule and a detailed Project budget. If the Grantee needs to secure an agreement with host railroad to access the railroad’s property and perform the conceptual engineering and/or NEPA work, the executed agreement should be included with the detailed Work Plan. The Work Plan will be reviewed and approved by the FRA and FRA will make the final decision if tiering will be used in the NEPA process. The Work Plan and budget shall identify studies to be conducted as part of the NEPA evaluation process for the Corridor Program.

The Grantee acknowledges that work on Tasks 2 and 3 will not commence until the detailed Work Plan has been completed and submitted to FRA and approval received. FRA will not reimburse the Grantee for costs incurred in contravention of this requirement.

***Task 1 Deliverables***:

* Detailed Project Work Plan, including Project budget and Project schedule, for FRA review and approval

**Task 2: Preliminary Service Planning and Alternatives**

The fundamental starting point of any transportation planning effort is the identification of the purpose and need for an improvement to the transportation system service in the market. The Grantee will prepare a Purpose and Need Statement to support the Corridor Program for FRA review and approval. The alternatives developed for the Corridor Program must address the purpose and need.

The Grantee will identify the possible alternatives for the Corridor Program, including the “no-build or no action alternative,” and from this list, conduct a feasibility analysis to identify the reasonable and feasible alternatives for inclusion in the EIS and SDP in Tasks 3 and 4. The Grantee will prepare a brief technical memo outlining the universe of alternatives and the proposed approach for alternatives analysis (AA) to FRA for review and approval, which will include identification of criteria and the methodology for preliminary service development planning.

The criteria will address how alternatives will be determined to be reasonable and feasible, in order to be carried forward into further analysis. The criteria will consider:

* The purpose and need for the action
* Technical feasibility (physical route characteristics, engineering constraints, capacity-constrained existing facilities or infrastructure, safety)
* Economic feasibility (market potential and/or ridership, capital and operating costs)
* Major environmental concerns

The alternatives analysis will include preliminary service planning elements such as:

* A description of the infrastructure improvements and the estimated costs for each alternative
* Capital costs estimates for each alternative, including unit cost and quantities relating to core track structures, stations, parking facilities, land acquisition, maintenance facilities, any new facilities or upgrades required for HSR operational control and management, design and construction management allowances, contingencies, and any additional ongoing capital costs
* Operating plan for each alternative, including railroad operation simulations, equipment options, and crew scheduling analyses, which in turn reflect such variables as travel demand and rolling stock configuration
* Ridership forecasts and travel demand for each alternative, including origin-destination trip tables suitable as input for other elements of the planning and environmental assessment process, pricing assumptions (including the rationale and basis for including or excluding both revenue-maximizing and public benefit-maximizing pricing models), and travel time-related assumptions (including frequency, reliability, and schedule data for the service alternatives)
* Operating and maintenance costs for a 40 year period, including maintenance of way, maintenance of equipment, train movement, passenger traffic and services such as marketing, reservations/information, station, and on-board services, general/administrative expenses, and cost-sharing arrangements with infrastructure owners and rail operators
* Potential phased implementation plans or the alternatives that can result in service improvements that have independent utility and reflect constructability considerations.

After FRA approval of the AA criteria and preliminary service development planning methodology, the Grantee will conduct the analysis and prepare an Alternatives Analysis Report for FRA review and approval.

As part of this process, the Grantee will develop conceptual engineering to a level sufficient to identify necessary infrastructure improvements and determine the cost estimates for each potential route alternative. Conceptual engineering will include developing design criteria, track work concepts, structural concepts, roadway crossing recommendations, layover and storage/maintenance facility requirements, unit cost data, and conceptual plans. The Grantee will coordinate with FRA and railroad owners and operators on this task. The conceptual engineering designs will form the basis of the EIS analysis conducted in Task 3.

***Task 2 Deliverables***:

* Purpose and Need Statement for FRA review and approval
* Technical memo on proposed AA criteria and preliminary service development planning methodology for FRA review and approval
* Alternatives Analysis Report for FRA review and approval
* Conceptual Engineering for Alternatives for FRA review and acceptance

**Task 3: EIS and ROD**

The Grantee will complete an EIS for the Corridor Program in close coordination with FRA, considering the various alternatives for implementing the proposed train service, the conceptual engineering for construction projects necessary to implement those service alternatives, and the potential environmental impacts that may be associated with those projects at a level of detail appropriate for the Corridor Program.

*Subtask 3.1 NEPA Scoping and Outreach*

The Grantee will conduct the scoping process, in coordination with FRA, to initiate the EIS, which will include:

* + Finalization of the Purpose and Need Statement
	+ Identification of the corridor study area
	+ Development of a notice of intent (NOI) to prepare an EIS
	+ Development of an Agency and Stakeholder Involvement Plan
	+ Holding scoping meetings with the public, stakeholders, and other agencies
	+ Preparation of a Scoping Report

The Grantee will prepare a draft Notice of Intent (NOI) to prepare an EIS and submit to FRA for review. FRA will then publish the NOI in the Federal Register to initiate the scoping process.

As part of scoping, the Purpose and Need Statement and the set of proposed alternatives detailed in the Alternatives Analysis Report identified in Task 2 will be refined through public, agency, and stakeholder input. The Grantee, in coordination with FRA, will develop the final Purpose and Need Statement for the Corridor Program and refine the set of proposed alternatives to be considered for further analysis in the EIS.

The Grantee will prepare and implement, in coordination with FRA, an Agency and Stakeholder Involvement Plan. The Plan will outline the public and agency involvement program and will identify key contacts within agencies, public officials, affected Native American Tribes, and other key stakeholder groups and the public. The Plan will also identify key contacts with civic and business groups, relevant interest groups, present and potential riders/users, and private service providers/shippers. The Plan will identify how involvement activities will be linked to key milestones in the planning/engineering and environmental analytic process, including public hearings on the Draft EIS. This process will include Tribal coordination to fulfill FRA’s Section 106 responsibilities. The Grantee will submit the Draft Public Involvement Plan for FRA review. The final Plan will be revised based on received comments and resubmitted to FRA for approval.

In addition, the Grantee will lead the scoping process, in cooperation with FRA, inviting participation from federal, state, and local agencies, Native American tribes, other interested parties, and the public, as identified in the Agency and Stakeholder Involvement Plan. The Grantee will record the process and provide a summary of comments, responses, and conclusions in a Scoping Report for FRA review and approval.

***Subtask 3.1 Deliverables***:

* Draft NOI
* Agency and Stakeholder Involvement Plan for FRA review and acceptance
* Scoping Report for FRA review and acceptance
* Final Purpose and Need Statement for FRA review and approval

*Subtask 3.2 EIS Document & Section 4(f) Analysis*

The Grantee will prepare environmental impact analysis and focus on the likely environmental effects for the entire Corridor Program relating to the type of service being proposed for the identified range of reasonable alternatives. The analysis of impacts will be based upon the conceptual engineering prepared in Task 2. The Grantee will prepare the EIS as per CEQ guidance and in accordance with FRA’s Procedures for Considering Environmental Impacts (64 Fed. Reg. 28545 (May 26, 1999)). The Grantee will propose a methodology for impact analysis to FRA for review and approval prior to commencing the work. The Grantee will include impacts for the Corridor Program associated with:

* Route alternatives
* Cities and stations served
* Train service levels
* Train technology
* Train operating speeds
* Ridership projections
* Major infrastructure components

Studies to be conducted as part of the NEPA evaluation process for the Corridor Program may include the following. A final list will be determined in conjunction with FRA in the Work plan and Approved Project Budget:

* Air quality

• Water quality

• Noise and vibration

• Solid waste disposal

• Ecological systems

• Impacts on wetlands areas

• Impacts on endangered species or wildlife

• Flood hazards and floodplain management

• Coastal zone management

• Use of energy resources

• Use of other natural resources, such as water, minerals, or timber

• Aesthetic and design quality impacts

• Possible barriers to the elderly and handicapped

• Land use, existing and planned

• Environmental Justice

• Public health

• Public safety, including any impacts due to hazardous materials

• Recreational opportunities

• Historic, archeological, architectural, and cultural

• Use of 4(f)-protected properties

• Socioeconomic

• Transportation

• Construction period impacts

The Grantee, in conjunction with FRA, will also identify strategies to avoid, minimize or mitigate identified impacts. This will include coordination with appropriate resource agencies throughout the NEPA process to manage any impacts identified during the development of the EIS. Specific mitigation strategies will be developed and included in the EIS as necessary by resource area, based on the following approaches:

* Avoiding the impact altogether by not taking a certain action or parts of an action.
* Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
* Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
* Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
* Compensating for the impact by replacing or providing substitute resources or environments.

This task will also include preparation of the environmental documents. The Grantee will prepare an annotated outline of the proposed EIS for FRA review and approval. The Grantee will then prepare an Administrative Draft EIS for FRA review and approval. Modifications to the Administrative Draft EIS requested by FRA will be incorporated to produce a Draft EIS for circulation. The Grantee will prepare and submit to FRA a draft Notice of Availability (NOA) for the Draft EIS. The Grantee will also distribute the Draft EIS to agencies and stakeholders, as outlined in the Agency and Stakeholder Involvement Plan

After the close of the public and agency comment period on the Draft EIS, the Grantee, in close coordination with FRA, will respond to comments and prepare the Final EIS. The Grantee will prepare an Administrative Final EIS for FRA review and approval. Modifications to the Administrative Final EIS requested by FRA will be incorporated to produce a Final EIS for circulation. The Grantee will prepare and submit to FRA a draft Notice of Availability (NOA) for the Final EIS. The Grantee will also distribute the Final EIS to agencies and stakeholders, as outlined in the Agency and Stakeholder Involvement Plan.

Additionally, the Grantee, in coordination with FRA, will identify the next steps required in the environmental process. The commitments agreed upon by the agencies throughout the NEPA process will be included in the draft ROD, which the Grantee will submit to FRA for review and consideration. A constant line of communication between the Grantee and FRA will be maintained throughout the entire NEPA process.

***Subtask 3.2 Deliverables:***

* Impact Analysis Methodology for FRA review and acceptance
* Annotated EIS Outline for FRA review and acceptance
* Administrative Draft EIS for FRA review and comment
* Draft EIS and Draft NOA for FRA review and approval
* Administrative Final EIS for FRA review and comment
* Final EIS and Draft NOA for FRA review and approval
* Draft ROD

**Task 4: Service Development Plan Development**

The Grantee will produce a SDP for the final selected alternative identified through Tasks 2 and Tasks 3 in close coordination with FRA. The SDP will lay out the overall scope and approach for the proposed service by clearly demonstrating the purpose and need for new or improved HSIPR service; analyzing alternatives for the proposed new or improved HSIPR service and identifying the alternative that would best address the identified purpose and need; demonstrating the operational and financial feasibility of the alternative that is proposed to be pursued; and describing how the implementation of the HSIPR SDP will be divided into discrete phases.

Specifically, the Grantee will include within the SDP:

* Purpose and need, including a description of the transportation challenges and opportunities faced in the markets to be served by the proposed service
* Service rationale to demonstrate how the proposed service can cost-effectively address transportation and other needs, based on current and forecasted travel demand and capacity condition
* Planning methodology used in developing the SDP
* Identification of alternatives, including HSIPR improvements, improvements to other modes, and a no-action alternative
* Operations modeling, including railroad operation simulations, equipment and crew scheduling analyses, and terminal, yard and support operations, which in turn reflect such variables as travel demand and rolling stock configuration. If the proposed service shares facilities with rail freight, commuter rail, or other intercity passenger rail services, the existing and future characteristics of those services will be included
* Station access and analysis to address the location of the stations to be served by the proposed service, how these stations will accommodate the proposed service, how passengers will access the stations, and how the stations will be integrated with connections to other modes of transportation. Refer to the FRA Station Area Planning recommendations at http://www.fra.dot.gov/downloads/FRA\_Station\_Area\_ Planning\_June\_2011\_c.pdf and undertake the activities described in Section 2. Transportation.
* Demand and revenue forecasts, including the methods, assumptions, and outputs for travel demand forecasts, and the expected revenue from the service, including ridership/revenue forecasts that specify the number of passengers and boardings/disembarking at stations
* Financial performance and projections for each phase of service, including operating costs and revenues, capital replacement costs, and other institutional arrangements affecting the system finances. The SDP will address the methods, assumptions and outputs for operating expenses for the train service including maintenance of way, maintenance of equipment, transportation (train movement), passenger traffic and services such as marketing, reservations/information, station, and on-board services, general/administrative expenses, cost-sharing arrangements, and access fees
* Conceptual engineering and capital programming, to include equipment, infrastructure improvements, facilities, and other investments required for each discrete phase of service implementation
* Benefit-cost analysis, including a description and quantification of benefits, whether operational, transportation output-related, and economic in nature, with particular focus on job creation and retention, ‘‘green’’ environmental outcomes, potential energy savings, and effects on community livability

The Grantee will prepare a technical memo that includes the proposed annotated outline for the Corridor Program SDP and details the proposed methodology for analyzing the required SDP components. The Grantee will submit the technical memo to FRA for review and approval. Upon approval, the Grantee will develop a draft Service Development Plan for FRA review and approval utilizing the agreed upon outline and methodology. The Grantee will incorporate FRA comments into the Final Service Development Plan for the Corridor Program.

***Task 4 Deliverables:***

* Technical Memo on SDP Outline and Methodology for FRA review and acceptance
* Draft SDP for FRA review and approval
* Final SDP
1. **PROJECT SCHEDULE AND DELIVERABLES**

The period of performance for all work will be approximately [*number*] months, from [*date*], to [*date*]. The deliverables associated with this Cooperative Agreement are listed below. The Grantee will achieve these deliverables to be authorized for funding of Project components and for the Project to be considered complete.

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| **Deliverable** |
| **Task 1: Detailed Work Plan, Budget, and Engineering Agreement** |
| * Detailed Project Work Plan
 |
| * Detailed Project Budget
 |
| * Engineering Agreement
 |
| **Task 2: Preliminary Service Planning and Alternatives**  |
| * Purpose and Need Statement
 |
| * Technical Memo on Criteria and Methodology
 |
| * Alternatives Analysis Report
 |
| * Conceptual Engineering
 |
| **Task 3: EIS and ROD**  |
| * Draft NOI
 |
| * Agency and Stakeholder Involvement Plan
 |
| * Scoping Report
 |
| * Final Purpose and Need Statement
 |
| * Impact Analysis Methodology
 |
| * Annotated EIS Outline
 |
| * Administrative Draft EIS
 |
| * Draft EIS and Draft NOA
 |
| * Administrative Final EIS
 |
| * Final EIS and Draft NOA
 |
| * Draft ROD
 |
| **Task 4: Service Development Plan**  |
| * Technical Memo on SDP Outline and Methodology
 |
| * Draft SDP
 |
| * Final SDP
 |

1. **PROJECT ESTIMATE/BUDGET**

The total estimated cost of the Project is $[*amount*], for which the FRA grant will contribute up to [*percent*]% of the total cost, not to exceed $[*amount*]. Any additional expense required beyond that provided in this grant to complete the Project shall be borne by the Grantee.

**Project Estimate by Task**

 Task 1: Detailed Work Plan, Budget, and Agreement $ XX,000

Task 2: Preliminary Service Planning and Alternatives $ XX,000

Task 3: EIS and ROD $ XX,000

Task 4: Service Development Plan $ XX,000

**Total Project Cost: $ XX,000**

**Project Estimate Contributions**

FRA Grant ([*percent*]% of project cost): $ XX,000

Grantee Contribution ([*percent*]% of project cost): $ XX,000

**Total Project Cost: $ XX,000**

The Grantee will prepare the detailed Project budget as outlined in Task 1 which when approved by FRA will constitute the Approved Project Budget. Revisions to the Approved Project Budget shall be made in compliance with Attachment 2, section 4 of the Cooperative Agreement.

1. **PROJECT COORDINATION**

The Grantee shall perform all tasks required for the Project through a coordinated process, which will involve affected railroad owners, operators, and funding partners, including:

* [*list parties other than the Grantee*]
* FRA
1. **PROJECT MANAGEMENT**

The Grantee is responsible for facilitating the coordination of all activities among the Grantee, relevant Host railroads, and FRA for implementation of the Project. Upon award of the Project, the Grantee will monitor and evaluate the Project’s progress through the administration of regular progress meetings scheduled throughout the Project’s duration. As part of the Project’s administration, the Grantee will:

* Complete necessary steps to hire a qualified consultant/contractor to perform required Project work
* Hold regularly scheduled Project meetings with FRA
* Maintain an Administrative Record for the Project, to be submitted to FRA upon Project completion. A Project master file will contain copies of reports, correspondence, and other documents and will be compiled and recorded in an Administrative Record.
* Perform periodic Project status reviews with relevant Host railroads, if any
* Comply with all FRA Project reporting requirements, including:
	1. Status of project by task breakdown and percent complete,
	2. Changes and reason for change in project’s scope, schedule and/or budget,
	3. Description of unanticipated problems and any resolution since the immediately preceding progress report,
	4. Summary of work scheduled for the next progress period, and
	5. Updated Project schedule