STATE RAIL PLANS: THE INTEGRATION OF FREIGHT AND PASSENGER RAIL PLANNING

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ABSTRACT
The Passenger Rail Investment and Improvement Act of 2008 (PRIIA) was created to reauthorize the National Railroad Passenger Corporation, better known as Amtrak, and strengthen the US passenger rail network by tasking Amtrak, the U.S. Department of Transportation (US DOT), Federal Railroad Administration (FRA), States, and other stakeholders in improving service, operations, and facilities. PRIIA also tasks States with establishing or designating a State rail transportation authority that will develop Statewide rail plans to set policy involving freight and passenger rail transportation within their boundaries, establish priorities and implementation strategies to enhance rail service in the public interest, and serve as the basis for Federal and State rail investments within the State. State Rail Plans are to address a broad spectrum of issues, including an inventory of the existing rail transportation system, rail services and facilities within the State. They must also include an explanation of the State’s passenger rail service objectives, an analysis of rail’s transportation, economic, and environmental impacts in the State, and a long-range investment program for current and future freight and passenger infrastructure in the State. The plans are to be coordinated with other State transportation planning programs and clarify long-term service and investment needs and requirements. US DOT is to establish minimum standards for the preparation and periodic revision of State rail plans.

GENERAL COMPONENTS OF A STATE RAIL PLAN
In general, a State Rail Plan should contain the following information.

1. An inventory of the existing overall rail transportation system and rail services and facilities within the State and an analysis of the role of rail transportation within the State’s surface transportation system.
2. A review of all rail lines within the State, including proposed high-speed rail corridors and significant rail line segments not currently in service.
3. A statement of the State’s passenger rail service objectives, including minimum service levels, for rail transportation routes in the State.
4. A general analysis of rail’s transportation, economic, and environmental impacts in the State, including congestion mitigation, trade and economic development, air quality, land-use, energy-use, and community impacts.
5. A long-range rail investment program for current and future freight and passenger infrastructure in the State.
6. A statement of public financing issues for rail projects and service in the State, including a list of current and prospective public capital and operating funding resources, public subsidies, State taxation, and other financial policies relating to rail infrastructure development.
7. An identification of rail infrastructure issues within the State that reflects consultation with all relevant stakeholders.
8. A review of major passenger and freight intermodal rail connections and facilities within the State, including seaports, and prioritized options to

INTRODUCTION
The Passenger Rail Investment and Improvement Act of 2008 (PRIIA) reauthorizes the National Railroad Passenger Corporation, better known as Amtrak, and strengthens the US passenger rail network by tasking Amtrak, the U.S. Department of Transportation (US DOT), Federal Railroad Administration (FRA), States, and other stakeholders in improving service, operations, and facilities. PRIIA focuses on intercity passenger rail services and the Northeast Corridor (NEC), state-sponsored corridors throughout the Nation, and the development of high-speed rail corridors. PRIIA also tasks States with establishing or designating a State rail transportation authority that will develop Statewide rail plans to set policy involving freight and passenger rail transportation within their boundaries, establish priorities and implementation strategies to enhance rail service in the public interest, and serve as the basis for Federal and State rail investments.
maximize service integration and efficiency between rail and other modes of transportation within the State.

9. A review of publicly funded projects within the State to improve rail transportation safety and security.

10. A performance evaluation of passenger rail services operating in the State, including possible improvements in those services, and a description of strategies to achieve those improvements.

11. A compilation of studies and reports on high-speed rail corridor development within the State and a plan for funding any recommended development of such corridors in the State.

12. A statement that the State is in compliance with the requirements of PRIIA.

There are also long-range service and investment programs that need to be included in a State Rail Plan. At a minimum, the plan should include:

- A list of any rail capital projects expected to be undertaken or supported in whole or in part by the State.
- A detailed funding plan for those projects.

The list of rail capital projects should contain a description of the anticipated public and private benefits of each such project; and a statement of the correlation between public funding contributions for the projects, and the public benefits. Also, in preparing the list of freight and intercity passenger rail capital projects, a State rail transportation authority should take into consideration the following matters:

- Contributions made by non-Federal and non-State sources through user fees, matching funds, or other private capital involvement.
- Rail capacity and congestion effects.
- Effects on highway, aviation, and maritime capacity, congestion, or safety.
- Regional balance.
- Environmental impact.
- Economic and employment impacts.
- Projected ridership and other service measures for passenger rail projects.

The Rail Plan shall also set forth State policy involving freight and passenger rail transportation, including commuter rail operations in the state; present priorities and strategies to enhance rail service that benefits the public; and serve as the basis for Federal and State rail investments within the State.

STATE RAIL PLAN CONTENT
A State Rail Plan is usually expected to consist of six chapters, as summarized below. The American Association of State Highway and Transportation Officials (AASHTO) has prepared a document titled “State Rail Planning Best Practices” (November 2009) that provides additional information regarding the content of these chapters. Section 22705 of United States Code Title 49 lists the content requirement items (listed above) that are to be included in the following chapters as noted below. Some Items are to be addressed in more than one chapter.

Chapter I. Introduction. This chapter is to include a Vision Statement, Goals, Objectives, policies, implementation strategies, and the statement of compliance with Section 22102 of United States Code Title 49.

Chapter II. Rail system inventory and review. This chapter should include a system description of facilities, statewide rail service statistics, freight and passenger operations, abandonments, capacity, system use and demand, identification of facility and property ownership, and intermodal connections.

Chapter III. Rail issues and opportunities. This chapter is to include a discussion of Rail’s transportation, economic, and environmental impacts in the State; safety and security projects. It should also include State-specific legal, socio-economic, financial and other issues and opportunities that assist or hinder rail projects, service and operations.

Chapter IV. Rail system analysis, evaluation, and needs identification. This chapter should include a performance assessment; an identification of current and future needs; a review of publicly funded projects to improve rail transportation safety and security; and recommended service metrics and performance guidelines for passenger rail service. It will also describe proposed new passenger rail and/or freight rail service. Capital and operating expenses will need to be addressed for current and proposed passenger rail services.

Chapter V. Rail system investments. This chapter should include a discussion of current and future funding needs and existing and potential future funding sources.

Chapter VI. Long-range service and investment program. This chapter needs to include a prioritization of projects and investments, and an implementation plan that addresses funding and scheduling of investments.

These chapters usually include tasks associated with the plan contents described above. A more detailed discussion of these tasks follows.

TASK ONE: PREPARE STAKEHOLDER OUTREACH INSTRUMENTS
The principal means for obtaining information and input from rail carriers, transit providers, local governments, and other rail stakeholders for the Rail Plan is through a stakeholder outreach process. The State will devise instruments, processes and a schedule for stakeholder outreach that will be tailored to the different groups of stakeholders identified for the Rail Plan. Information gathered through stakeholder outreach will be used in addressing the remaining tasks in the Rail Plan.
These instruments could include the use of written surveys, telephone interviews, online/website surveys or comments, or other methodologies to be developed. Once developed and approved by all parties, the actual outreach activities are performed as Task Two.

Usual rail stakeholder groups identified include the following:
- Freight railroads
- Passenger railroads
- Freight stakeholders
- Rail passenger stakeholders
- Local and regional government
- Other state agencies

**TASK TWO: CONDUCT STAKEHOLDER OUTREACH**
A comprehensive outreach effort to rail stakeholders utilizing the instruments, processes, and schedule developed in Task One is conducted next. This outreach effort should obtain information that will enable the completion of the remaining tasks of this scope of work, as well as other items that will enable the State to complete other components of the Rail Plan.

**TASK THREE: PREPARE MASTER LIST OF RAIL NEEDS AND ISSUES**
A master list of rail needs and issues identified during the stakeholder outreach conducted in Task Two is compiled. This master list should contribute to the remaining tasks in this scope of work, as well as to components of the Rail Plan. At a minimum, this list of rail infrastructure needs and issues should include:
- A description of each identified rail need or issue
- Physical location, where applicable
- Railroad owner, where applicable
- The stakeholder or stakeholders that identified the issue
- Expected benefits from addressing the need, if provided
- Proposed solutions to address the need, if provided
- Estimated cost to address the need, if available
- Dedicated funding sources applicable to addressing the issue, if known

The master list of rail needs and issues should include all items identified during the stakeholder process, including but not necessarily limited to: proposed, planned, and committed rail capital projects; rail infrastructure needs; legal issues affecting rail investment or operations; and financial obstacles to rail investment. The master list shall also identify, where known, whether each need or issue primarily impacts freight rail, passenger rail, or rail safety and security.

Project categories could include, but not be limited to:
- Main-line Capacity Improvements: Improvements on primarily Class 1 railroads that address bottlenecks or capacity constraints.
- Structural Improvements: Improvements on Class 1 branch lines or short-lines that improve the efficiency of operations through accommodating heavier loadings (e.g., 286k carloads) or reducing rail operating expenses.
- Safety Improvements: Improvements on essential branch lines or short-lines to eliminate excepted track, repair bridges or address emergency situations.
- Rail/Highway Crossing Improvements: Improvements to upgrade at-grade crossings, eliminate at-grade crossings, or create quiet zones.
- Economic Development Projects: Projects that establish or improve rail access for new or existing industries or investment in rail facilities (e.g., intermodal facilities) that contribute to the state’s economy.
- Rail Preservation Projects: Investments to address rail lines threatened with abandonment or service termination.
- Incremental project costs of establishing rail passenger service over freight lines to address capacity or safety concerns.
- Station construction, reconstruction or improvement projects.
- Rail passenger equipment maintenance facilities.
- Subsidy payments to meet operating losses on new or expanded services.

**TASK FOUR: CONDUCT EVALUATIONS AND ANALYSES OF STATE’S RAIL SYSTEM**
Evaluations and analyses of the State’s rail system are required for completing portions of Chapters II, III, and IV of the Rail Plan. This work utilizes input from the stakeholder outreach process and the master list of rail infrastructure issues completed in Task Two and Task Three, respectively, as well as data, plans, studies, reports, issues and other information regarding existing and potential future rail facilities and operations.

This task also includes the evaluation of the impacts of rail passenger operations on freight railroad-owned lines for existing and potential services. This consists of reviewing both freight and passenger operations over current passenger routings. The evaluation includes the following:
- The status of existing relationships and coordination efforts between the State and Amtrak.
- Detailed analysis of on-time performance and integration-related causes.
- Identification of existing bottlenecks and capacity constraints and potential future constraints based on projected freight and passenger levels.
- A prioritized list of infrastructure and/or operational improvements to meet existing capacity, safety, and service reliability issues for both passenger and freight service on existing routes.
Potential safety, capacity, and service efficiency issues on proposed new rail passenger routes or corridors should also be described in this task. This analysis should include the following:

- Review of AAR, Class 1 railroad, and FRA policies regarding the establishment of new intercity rail.
- Passenger or commuter operations, as well as high speed rail passenger services (speeds greater than 90 mph).
- Identification of potential bottlenecks, rail freight capacity restrictions, and safety or operational issues due to the addition of rail passenger service.
- A prioritized list of infrastructure improvements for each proposed passenger routing to meet identified capacity, safety, and service reliability issues.

A review of best-practice coordination arrangements between freight railroads and individual and multi-state supported rail passenger operations should also be completed. Successful operational, project development, and financing coordination arrangements that would likely meet state or regional needs should be documented.

This task will also address the emergence of multimodal transportation corridors and the role of rail freight and passenger services in the establishment and growth of intermodal operations and as mode capable of diverting freight and passengers from highways. An analysis of transportation-related economic development and land-use practices related to corridor operations that could improve access and efficiency for industrial development should be completed. Also identify existing and potential emerging corridors that meet criteria that will be developed. These criteria may include, but not be limited to:

- Multimodal and intermodal corridors;
- Corridors connecting major traffic generators/consumers either within the state or outside of the state;
- Corridors with potential for new technology;
- Intermodal movements, such as containerized grain movements;
- Rail corridors with economic development potential due to attractive land uses; and
- Major crossroads that provide attractive intermodal access, etc.

For each corridor identified, existing and potential traffic levels and primary commodities will need to be identified. Potential projects that address projected capacity constraints or bottlenecks, and other actions such as zoning changes or the preservation of properties deemed strategic for transportation-related development, should be provided and prioritized.

One last activity that should be completed in this task is to identify existing and potential passenger corridors that meet criteria that will be developed. The criteria may include, but not be limited to:

- Corridors connecting major population centers within or outside the state conducive to rail passenger service;
- Major travel generators conducive to rail travel such as colleges, etc.;
- Potential rail corridors that parallel major commuter routes; and
- Potential rail corridors that would provide efficient linkages to other transportation modes, such as airports.

Potential projects that would address chokepoints and capacity constraints, and would enhance the potential for successful rail passenger operations, should be provided and prioritized.

**TASK FIVE: RAIL SYSTEM INVESTMENT FUNDING**

This task includes a review of existing funding sources for rail investments in the State and identification of prospective future funding sources for rail investments. Prospective future funding sources should consider Federal, State, and local funding sources, as well as any potential private sector funding. An evaluation of how the rail investment needs identified in Chapter IV may be addressed using existing and prospective funding sources should also be completed. Prospective funding sources for both capital and operating revenue should be addressed, and include estimates of annual revenue projected to be raised by these funding sources.

**TASK SIX: LONG-RANGE INVESTMENT PROGRAM**

The next task includes the prioritization of the rail projects and investments identified in Chapter IV of the Rail Plan and matched with prospective funding sources in Chapter V of the Rail Plan to develop a long-range rail service and investment program for the State. The long-range service and investment program shall be financially constrained within the period covered by the Rail Plan – usually five to ten years. A supplemental program of prioritized unfunded projects can also be prepared.

**TASK SEVEN: RAIL PLAN PREPARATION AND PRINTING**

After the appropriate reviews, a final draft of the Rail Plan is prepared and by the State and made available to rail stakeholders and the public for final review and comment. The final State Rail Plan is then prepared and submitted to the FRA.

**CONCLUSION**

Today, rail is part of a complex national system for the movement of people and goods. Passenger and freight Rail and intermodal transportation are closely interlinked in that people and goods use the same infrastructure for transportation by
highway and rail. The development of solid state rail plans provide for the integrated planning and financing of both current and future freight and passenger rail systems.

REFERENCES
1. The Passenger Rail Investment and Improvement Act of 2008 (Public Law No. 110-432, Division B, enacted Oct. 16, 2008, Amtrak/High-Speed Rail)
State Rail Plans: The Integration of Freight and Passenger Rail Planning

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Introduction

• PRIIA is enabling legislation
  – Reauthorizes Amtrak
  – Focus is on intercity passenger rail
  – Proposes development of high speed rail corridors
  – Tasks States with establishing or designating a State rail transportation authority
PRIIA and State Rail Plans

- State Rail Transportation Authorities are to develop statewide rail plans that:
  - Set policy involving freight and passenger rail transportation
  - Establish priorities and strategies for enhancing rail service
  - Serve as basis for federal and state rail investments
State Rail Plan Components

- Inventory of existing rail system, services, and facilities
- Analysis of role of rail within State
- Review of rail lines in State, including proposed HSIPR corridors
- Statement of passenger rail objectives
State Rail Plan Components

- Analysis of rail impacts in the State
  - Congestion mitigation
  - Trade and economic development
  - Air quality
  - Land use
  - Energy use
  - Community impacts
State Rail Plan Components

- Long-range rail investment program
  - Current and future
- Public financing issues
- Identification of rail infrastructure issues
- Review of major passenger and freight intermodal rail connections and facilities
- Review of publicly funded safety and security projects
State Rail Plan Components

• Performance evaluation of passenger rail services operating in the State
• Compilation of studies and reports on HSIPR corridor development and a plan for funding such corridors
• A statement that the State is in compliance with the requirements of PRIIA
Long-Range Service and Investment Programs

- List of any rail capital projects expected to be undertaken or supported in whole or in part by the State
- Detailed funding plan for those projects
List of Capital Projects

- Contributions made by non-Federal and non-State sources through user fees, matching funds, or other private capital involvement
- Rail capacity and congestion effects
- Effects on highway, aviation, and maritime capacity, congestion, or safety
List of Capital Projects

- Regional balance
- Environmental impact
- Economic and employment impacts
- Projected ridership and other service measures for passenger rail projects
STATE RAIL PLAN CONTENT

- Chapter I. Introduction
- Chapter II. Rail system inventory and review
- Chapter III. Rail issues and opportunities
STATE RAIL PLAN CONTENT

• Chapter IV. Rail system analysis, evaluation, and needs identification
• Chapter V. Rail system investments
• Chapter VI. Long-range service and investment program
Work Elements

- TASK ONE: PREPARE STAKEHOLDER OUTREACH INSTRUMENTS
- TASK TWO: CONDUCT STAKEHOLDER OUTREACH
- TASK THREE: PREPARE MASTER LIST OF RAIL NEEDS AND ISSUES
Work Elements

- TASK FOUR: CONDUCT EVALUATIONS AND ANALYSES OF STATE’S RAIL SYSTEM
- TASK FIVE: RAIL SYSTEM INVESTMENT FUNDING
- TASK SIX: LONG-RANGE INVESTMENT PROGRAM
- TASK SEVEN: RAIL PLAN PREPARATION AND PRINTING
Conclusion

- Rail is part of a complex national system for the movement of people and goods.
- Passenger and freight Rail and intermodal transportation are closely interlinked in that people and goods use the same infrastructure.
- The development of State Rail Plans provide for the integrated planning and financing of current and future freight and passenger rail systems.