

RAIL HANDBOOK EXECUTIVE SUMMARY

PURPOSE

The purpose of the Rail Office Programs Handbook (Rail Handbook) is to identify and designate responsibility for rail processes in support of the Florida Department of Transportation's (Department) mission of a safe transportation system, which ensures mobility of people and goods, enhances economic prosperity and preserves the quality of our environment and community (Department Procedure Topic No. 725-080-002).

The Rail Handbook identifies rail processes, guidelines, and responsibilities for the development and implementation of programs which include Highway-Rail Grade Crossing Inventory, Highway-Rail Grade Crossing Safety Improvement Program, Construction and Maintenance Project Management Program, Public Highway-Rail Grade Crossing Opening - Closure Program, Railroad Safety Inspection Program, Florida Rail System Plan, Rail Emergency Management Plan, and the Use of Locomotive Horns at Highway-Rail Grade Crossings and Quiet Zone Application Process.

The principal users of the Rail Handbook are Department personnel, railroad companies, design and construction companies, transportation planners, Florida cities and counties, individuals or groups requesting information or permits pertaining to rail programs, and other State or Federal organizations involved in the development and implementation of rail programs.

CHAPTER 1

HIGHWAY-RAIL GRADE CROSSING INVENTORY

INTRODUCTION

The Department's Highway-Rail Grade Crossing Inventory includes the database and application called Rail Highway Crossing Inventory (RHCI). The RHCI contains railroad/highway crossing data to support the Department, the U.S. Department of Transportation (USDOT), the Federal Highway Administration (FHWA) and Federal Railroad Administration (FRA) highway-rail crossing safety programs and initiatives. The FRA requires the Department to collect and report data elements. Requirements for data collection and data entry into the RHCI are identified below.

DEFINITIONS

- **Railroad Crossing:** An intersection of a railroad corridor by a roadway or bicycle/pedestrian pathway, intersecting at-grade or by grade separation by a public or private passageway.
- **Highway-Rail Grade Crossing:** A location where a railroad track is crossed at-grade by any public or private roadway.
- **Rail Highway Crossing Inventory (RHCI):** The Department's repository for data elements specific to railroad crossings within the state.
- **Crossing Inventory Field Data:** Data collected on site at the specific railroad crossing, recorded manually on diagnostic field review data sheets or entered into a computer that has been programmed to record and file required data elements. Data collection may include photo documentation of the railroad crossing which shows the required areas and ancillary equipment.
- **Crossing Identification Number:** Numeric/alpha number (example, 123456A) located on the crossing warning device post, crossing control cabinet or at other locations within the boundaries of the rail crossing location. The number will typically be on an attached placard on one of the structures or stenciled on any of the structures or supports within the grade crossing area.
- **Crossing Location Information:** Crossing number, county, Florida Department of Transportation District, latitude and longitude, rail company name, railroad milepost, US route number, crossing street name or number, or any additional information that supports the proper location of the crossing site.
- **Crossing Status:** Indicates one of several combinations of the status of roadway and/or track. Four statuses identified are:
 - Roadway Open and Track Active
 - Roadway Open and Track Inactive
 - Closed with the Roadway Removed
 - Closed with the Track Remove

- **Crossing Type:** Ownership of the crossing as:
 - Public
 - Private

- **Crossing Purpose:**
 - Highway Vehicle
 - Pathway, Pedestrian, Other
 - Station Pedestrian

DATA COLLECTION

The RHCI contains all railroad data elements that meet the Federal Railroad Administration (FRA) and the Florida Department of Transportation requirements. Field data is collected through diagnostic field reviews, crossing status changes, and rail crossing inventory activities. Data updates are transmitted to FRA based on the requirements from the Rail Safety Improvement Act of 2008 (49 USC 20101; Section 204. National Crossing Inventory).

FIELD DATA

Each railroad is inspected, photographed, and inventoried at the crossing's location to verify the features and conditions.

OFFICE DATA

Office data collection may include documentation and data collection such as number of lanes, number and type of tracks, crossing status, crossing purpose, crossing type, Annual Average Daily Traffic (AADT), school bus counts, and railroad schedules.

CENTRAL RAIL OFFICE

The Central Rail Office shall be responsible for the statewide oversight of the RHCI data collection program and the related FRA reporting process including:

- Acting as liaison between the Department and the FRA.
- Overseeing data and software including creating, maintaining and managing software needed to operate RHCI.
- Verifying data elements at each railroad crossing in the state through inventory updates. All railroad crossings shall be located and all data elements of RHCI verified approximately every three years.
- Incorporate new railroad crossing notices and updated information received from railroad companies, data collection, and other sources into RHCI.
- Updating annual school bus counts, including obtaining source documentation from local school boards and private schools (if available).
- Conducting traffic counts on roads with railroad crossings as needed.
- Updating annual train/vehicle incident data from FRA.
- Developing annual Signal Safety Index ranking.
- Performing quality control and quality assurance reviews.
- Notify the appropriate railroad company of any missing USDOT numbers as required by FRA.

DISTRICT OFFICES

The District Rail Coordinators shall provide technical data and field support for collecting crossing characteristics or modifications. Any identified crossing status change (opening, closure, or new installation) that impacts RHCI shall be reported. RHCI updates include such items as:

- Populating RHCI when a railroad crossing is officially opened, closed, upgraded, or modified.
- Verifying project completions, closures, and changes.
- Updating RHCI when a new crossing warning device and/or surface is installed.
- Updating RHCI when the railroad submits a new USDOT Grade Crossing Inventory Form.
- Forwarding completed USDOT Grade Crossing Inventory Forms to FRA with copies to the Central Rail Office.

CHAPTER 2

HIGHWAY-RAIL GRADE CROSSING SAFETY IMPROVEMENT PROGRAM

INTRODUCTION

The Department Highway-Rail Grade Crossing Safety Improvement Program has regulatory authority through **Section 335.141(2)(a), Florida Statutes**.

The program:

- identifies public highway-rail grade crossing locations needing improvements,
- enhances safety through installing or upgrading public highway-rail grade crossing warning devices, circuitry, and/or surfaces,
- conducts corridor reviews identifying roadway and signalization improvements to reduce hazards,
- identifies redundant and unnecessary public highway-rail grade crossings for potential elimination, and
- evaluates effectiveness of safety improvement projects.

STEP 1 - DIAGNOSTIC FIELD REVIEW PROCESS

- Incidents entered into RHCI: By May, the Central Rail Office enters rail crossing incidents into the RHCI for the preceding calendar year and calculates the Safety Index for each crossing.
- Priority List of Crossings for Review: During May, each District Rail Coordinators will run a Safety Index report from RHCI listing crossings based on the Safety Index rank. The priority list can be adjusted by eliminating or adding crossings based on:
 - existing warning devices compared to recommended warning devices,
 - crossings on prior diagnostic field review lists that were determined to be poor candidates for safety signal improvement at that time for which conditions have changed,
 - crossings scheduled for improvement, abandonment, or closure,
 - crossings with signals over 30 years old or with other age-related problems,
 - crossings with safety issues not reflected by the Safety Index,
 - crossings that are part of a corridor review,
 - crossings with passive devices that have had an incident within the last year,
 - crossings where rail traffic carries hazardous materials, passengers, or have plans to increase rail traffic,
 - crossings identified by citizens as unsafe, and
 - crossings identified by railroad partner as unsafe or with near misses.
- Schedule of Diagnostic Field Reviews: The Central Rail Office will coordinate the schedule of diagnostic field reviews with each District Rail Coordinator. The general time frame for reviews is during the summer, from May to August. District Rail Coordinator will determine diagnostic field review locations and coordinate with railroad companies and local agencies.

■ Diagnostic Field Review Team Members:

Each District will prepare the diagnostic field review data sheets and incident reports for each crossing to be reviewed. The Diagnostic Field Review Team:

- should be multi-disciplinary with the ability to evaluate conditions and recommend crossing safety improvements.
- should include Central and District Rail representatives, the District Safety and/or Traffic Operations Engineer(s), Railroad personnel, and, if applicable, engineering personnel from the City or County with jurisdictional authority over the crossing.
- should be notified by the District Rail Coordinator with time, place and crossing data information.

The District Rail Coordinator will confirm each team member's participation in the review.

■ Diagnostic Field Review Team Observations:

Observations should include:

- Railroad classification (i.e., mainline, branch, industrial spur).
- Train traffic mix (i.e., switching, through, passenger) operating at, or in the vicinity of the crossing.
- Condition and visibility of warning devices, including advance warning signs and pavement markings.
- Other traffic control devices contributing to vehicles stopping on the crossing that may require signal preemption.
- Signs and signals that are fixed hazards.
- Alignment, grade (i.e., profile), and sight distance of crossing.
- Crossing surface conditions.
- Roadway geometrics diverting driver attention.
- Physical characteristics at crossing including auxiliary lanes, lighting, and driveways.
- Conditions leading to vehicles being stopped or queued on the crossing.
- Hazards presented by vehicles that are required by law to stop at the crossing (i.e., school buses, public transportation buses, trucks carrying hazardous materials, etc.).
- Type of roadway (freeway, arterial, collector road and street, local road and street) and roadway operational characteristics including traffic volume, vehicular speed, and types of use (i.e., buses, pedestrian, etc.).
- Motorists' behavior.
- Conditions of other rail crossings in the area.
- Proximity of nearby crossings.

■ Diagnostic Field Review Team Data Collection:

The Diagnostic Field Review Team will note crossing information that is incorrect or missing for later entry into RHCI.

■ Diagnostic Field Review Team Recommendations:

Based on the evaluation of the crossing, the team may recommend the following safety improvements, in compliance with Chapter 14-57.012(3), Florida Administrative Code; Florida Department of Transportation Design Standards (Topic No. 625-010-003); and the Manual on Uniform Traffic Control Devices (MUTCD):

- DOT Crossing Number identification
- Emergency Notification System signs
- Flashing lights and gates
- Pedestrian flashing lights and gates
- Advance warning beacon
- Advance warning sign
- Replacement of cabinet
- Pavement markings
 - Stopbars
 - Railroad Crossing Markings
- Additional signage/pavement markings
 - Do Not Stop On Tracks sign
 - Number of Tracks sign
 - Yield sign
 - Stop sign
 - Low Ground Clearance sign
- ADA improvements / signage
- Overhead illumination
- Traffic signal installation
- Preemption
 - Advanced
 - Simultaneous
- Constant Warning Time (CWT), Direct Current (DC), Alternating Current (AC), Audio frequency overlay (AFO), Motion Sensors
- Shunt Detectors
- Curb and gutter
- Improved geometry
- Pavement of shoulder through the crossing
- Crossing surface rehabilitation/replacement
- Raised medians and or barriers
- Fill and drainage improvements
- Utility relocation
- Tree and brush trimming
- Candidates for consolidation

- District RHCI Update: Crossing data corrections/additions acquired during the diagnostic field reviews will be updated in RHCI by the District Rail Coordinator.

- District Submittal of Proposed Projects: Each District Rail Coordinator will submit to the Central Rail Office the information for all crossings reviewed during Diagnostic Field Review within 30 days after the review including:
 - Completed Diagnostic Field Review Data Sheets
 - Cost Estimates provided by the railroad company

STEP 2 - SAFETY PROGRAM FUNDING PROCESS

- Project Approval: Central Rail Office will determine maximum available funding and approved projects.
- Projects are reviewed statewide and projects are selected by Central Rail Office using a number of factors including:
 - safety index,
 - project cost,
 - incident history,
 - corridor emphasis,
 - diagnostic field review team safety observations,
 - upgrading crossings from passive devices to active devices,
 - input from local governments, and
 - input from railroad partners.

In the interest of maximizing the impact of limited funding, low cost improvements are also considered. One low cost application the Department works to implement is to install light-emitting diode (LEDs) on east/west crossings to improve warning visibility for the motoring public.

- Federal Aid Project Number Assignment: The Central Office will submit the list of candidate projects to the Federal Aid Office for approval.
- Encumbrance of Funds: Each District will encumber funds through the Comptroller's Office for each safety improvement project.

STEP 3 - SAFETY PROGRAM CONTRACTING PROCESS

- Change Orders Used for State Road Projects: Under the terms of existing or master agreements, the District will request federal approval, encumber funds, and execute a Change Order for a state road safety improvement project.
- Change Orders Used for Off-System Projects: Under the terms of the existing agreement, the District will execute a Change Order for an off-system safety improvement project if the type and class of signal has not changed and the existing agreement has language stating that the "Schedule of Annual Cost of Automatic Highway Grade Crossing Devices" is subject to future revision.
- Agreements Executed: The District Rail Coordinator will facilitate the execution of the appropriate agreement and disseminate copies to all parties, including the Central Rail Office. The requirements of the City and County will be restated in the cover letter that accompanies their executed Agreement. The order of documents submitted to Central Rail Office, as part of the Agreement, should be as follows:
 - Legal documents

- Resolution (if tri-party with city or county)
- Maintenance schedule (only if signals involved)
- Detail estimates, encumbrances, and / or Federal Electronic Authorization
 - Crossing
 - Signal or generic (Safety Program)
 - Communication adjustment
 - Flagging service
- Company plans for installation and / or adjustment
- Company's circuit drawings
- Florida Department of Transportation Design Standards
 - 560 if crossing involved
 - 17882 if signal installation and / or relocation
 - 17721 if conduit installation
 - 280 if drainage installation (sheet 2 of 4)

RAILROAD FORMS – Accessible on Infonet Forms			
= Surface + Signal	Form No.	Title	Remarks
= +	725-090-02	Railroad Daily Diary	
= +	725-090-04	RR Change Order	State Roads only
= +	725-090-05	RR Relocation Schedule	
=	725-090-07	Work Description-Grade Crossing-New/Reconstruct	
+	725-090-09	Work Description-Grade Crossing Traffic Control Devices	
=	725-090-13	RR Reimbursement Agreement-Grade Crossing	2 Party: RR/DOT
=	725-090-14	RR Reimbursement Agreement-Grade Crossing- Supplemental	2 Party: RR/DOT
+	725-090-15	RR Reimbursement Agreement-Grade Crossing Traffic Control Devices	2 Party: RR/DOT
+	725-090-18	RR Reimbursement Agreement-Grade Crossing Traffic Control Devices-Supplemental	2 Party: RR/DOT
= +	725-090-19	RR Reimbursement Agreement-Grade Crossing and Crossing Traffic Control Devices	2 Party: RR/DOT
= +	725-090-23	RR Reimbursement Agreement-Grade Crossing and Crossing Traffic Control Devices	3 Party: County/City Resolution (725-090-53)
= +	725-090-24	RR Reimbursement Agreement-Grade Crossing and Crossing Traffic Control Devices Preemption	3 Party: County/City Resolution (725-090-53)
+	725-090-27	RR Reimbursement Agreement-Grade Crossing Traffic Control Devices	3 Party: County/City Resolution (725-090-55; 725-090-41)
+	725-090-28	RR Reimbursement Agreement-Grade Crossing Traffic Control Devices-Supplemental	3 Party: County/City Resolution (725-090-55)
+	725-090-31	RR Reimbursement Agreement-Synchronization of Grade Crossing Traffic Control Devices	3 Party: CSXT, County/City Resolution (725-090-75)
+	725-090-36	RR Reimbursement Agreement-Grade Crossing Traffic Control Devices	3 Party: RR/JAX
+	725-090-45	RR Reimbursement Agreement-Synchronization of Grade Crossing Traffic Control Devices	3 Party: RR, County/City Resolution (725-090-75)

= +	725-090-53	3 Party: County/City Resolution Grade Crossing and Crossing Traffic Control Devices	Agreements: 725-090-23 and 725-090-24
+	725-090-55	3 Party: County/City Resolution Grade Crossing Traffic Control Devices	Agreements: 725-090-27 and 725-090-28
+	725-090-75	County/City Resolution-Synchronization of Grade Crossing Traffic Control Devices	Agreements: 725-090-31 and 725-090-45
= +	521-16R-DW4	Notice of Reimbursable/Non-Reimbursable Utility Construction Work	Completion Notice

STEP 4 - CONSTRUCTION AND INSTALLATION PROCESS

- Preliminary Engineering and Design:
 - Preliminary Engineering by the railroad company will begin with the verification and project scope letter from the District.
 - The District reviews the Design Package and submits approval to the Railroad with a Notice to Proceed.
- Construction and Installation
 - The installation project date is scheduled by the Railroad.
 - The railroad company orders materials and notifies the District of scheduled construction start date.
 - The railroad company provides In-Service Notification to District Rail Coordinator.
 - The District inspects project and provides approval and In-Service date letter to Central Rail Office and the railroad company.

STEP 5 - PROJECT PAYMENT PROCESS

- Completion Date Letter: District submits 180 day project completion date letter to the Railroad.
- Final Bill: Final bill from the Railroad is received by the District within the 180 days and District furnishes payment (within 45 days) or contests invoice, paying final bill minus exception.
- Exceptions to Invoice: Exceptions by the District require Railroad to submit a new invoice with documentation. District concludes project payment within 45 days.
- Un-encumbrance of Funds: The District Rail Coordinator will un-encumber funds and notify the District Federal-Aid Coordinator.

STEP 5 - RHCI PROCESS

- District Update: Districts update RHCI with new signal information for the safety improvement projects.

STEP 6 - PROGRAM EVALUATION

- Six-Year Before and After Report: Each July, Central Rail Office will submit the 6-Year Before and After Report. The report is a project cost summary with comparison of incidents and traffic volume, comparing the periods six years before and six years after project completion.

- Conduct Quality Assurance Reviews on selected projects for compliance with these processes.

LUMP SUM PAYMENTS

Lump sum payments may be made when:

- The railroad and Department agree to the method;
- Installation of eligible railroad work is limited to \$100,000 maximum reimbursement; and
- Work must include high intensity reflectorized crossbuck projects, warning device upgrades, lens replacement programs, crossing inventory or identification projects.

REIMBURSEMENT AGREEMENTS

All railroad reimbursement agreements must:

- Clearly document all terms and conditions necessary to govern the agreement between the railroad and Department,
- Clearly define the scope of work by identifying all tasks to be provided by the railroad,
- Establish specific deliverables (measurable events directly related to the scope),
- Require all project records to be made available for departmental inspection,
- Establish remedies for noncompliance or nonperformance, and
- Establish steps for pro-rating invoice amounts if minimum performance standards are not met.

CHAPTER 3

HIGHWAY-RAIL GRADE CROSSING CONSTRUCTION AND MAINTENANCE PROJECT MANAGEMENT PROGRAM

INTRODUCTION

Construction and maintenance of highway-rail grade crossings, which may include new construction, reconstruction, widening, and/or resurfacing of a road at or near the right-of-way of a highway railroad grade crossing, require negotiations with railroads and local governments in accordance with **Section 337.11, Florida Statutes** and **Rule Chapter 14-57, Florida Administrative Code**. Railroad corridor management is required for acquiring abandoned railroad corridors according to **Section 260.0161(2), Florida Statutes**.

Projects may include the coordination of advance notification, pre-design, preconstruction conferences, maintenance of traffic, field coordination, emergency surface maintenance, inspection and billing. The Central Rail Office and the District Rail Coordinators will coordinate with Department offices to provide these services.

CENTRAL RAIL OFFICE

The Central Rail Office responsibilities are:

- As necessary, advise the districts of project development.
- Submit project data to the Federal Aid Office.
- Schedule and coordinate flagging.
- Lead efforts for any railroad construction projects involving work not associated with highway-rail grade crossing warning devices and/or surface maintenance. Lead the development of any agreements, negotiations with railroad partners, and discussions on future projects.
- Maintain communications with the Surface Transportation Board regarding actions relating to abandonments of railroad lines.
- Perform initial screening of railroad corridors potentially available for Department acquisition through the federal railroad abandonment notification process.
- Ensure compliance with the requirements assigned to the Department by a Memorandum of Agreement between the Florida Department of Environmental Protection (FDEP) and the Department regarding abandoned railroad corridor rights-of-way.
- Evaluate applications by a local governmental entity for a rail corridor crossing permits for a corridor where rail service has been abandoned according to 14-57.014, Florida Administrative Code.

DISTRICT RAIL COORDINATORS

The District Rail Coordinator responsibilities are:

- Review plans, recommend and determine the eligibility of reimbursement costs to remove, relocate, and/or install railroad facilities within construction project limits.
- Submit construction contract documents including work description sheets and construction plans to the railroad company.
- Obtain estimates for all railroad reimbursable work.
- Obtain authority to enter railroad right-of-way.
- Review and approve railroad estimates and/or plans.
- Obtain necessary executed agreement(s) from the railroad and local government, as

required.

- Obtain funding and ensure execution of agreements or change orders. Distribute agreements or change orders to all parties with the authority to proceed with work.
- Attend preconstruction conferences with highway contractors and railroads to identify responsibilities and establish a schedule of work.
- Schedule and coordinate flagging.
- Schedule and coordinate emergency surface maintenance and repairs within the Department and with railroads.
- Coordinate any railroad construction projects involving work not associated with highway-rail grade crossing warning devices and surface maintenance with Central Office rail staff. Coordinate development of any agreements, negotiations with railroad partners, and discussions on future projects.
- Conduct site review, prior to commencement of work within the railroad right-of-way, for the placement or relocation of facilities.
- Conduct a daily inspection or request daily reports from Department personnel on construction progress within the railroad's right-of-way.
- Obtain final inspection documentation to ensure project compliance.
- Approve invoices for all satisfactory completed work.
- Identify state road crossing locations that are affected by the abandonment of rail corridors, notify the District Right-Of-Way Administrator of these locations, and request the acquisition of the crossing areas in order to secure integrity of the state's roadway.

CHAPTER 4

PUBLIC HIGHWAY-RAIL GRADE CROSSING OPENING - CLOSURE PROGRAM

INTRODUCTION

The Department has regulatory authority over all public railroad-highway grade crossings in the state, including the authority to issue permits which shall be required prior to the opening and closing of such crossings. (**Section 335.141, Florida Statutes**)

DEFINITIONS

- **Applicant** – Any person or group impacted by the crossing; railroad operating through the crossing; governmental entity with jurisdiction over the road; or the Department.
- **Application** – A Railroad Grade Crossing Application, Form 725-090-66, to open or close a public rail grade crossing.
- **Public railroad-highway grade crossing** – A location at which a railroad track is crossed at grade by a public road.
- **Stipulation of Parties** – A voluntary agreement between the Department, a railroad, a governmental entity and parties with standing. The stipulation establishes the responsibilities and actions of each party and permits the opening or closure.
- **Notice of Intent** – The Department's recommendation to permit or deny the applicant's request. It is based upon an analysis of the request based on Rule 14-57.012, Florida Administrative Code criteria, impacts and relevant facts.
- **Administrative Hearing** – A hearing based on Section 120, Florida Statutes, in which an administrative law judge hears testimony and argument on all issues involved.
- **Recommended Order** – The order entered by the administrative law judge, following the hearing, which supports or denies the opening or closure.
- **Final Order** – The order issued by the Department Secretary. It may be an adoption of the Recommended Order or may overrule the order, authorizing or denying the applicant's request.

CHAPTER 14-57.012, FLORIDA ADMINISTRATIVE CODE, CRITERIA

In considering an application to open or close a public railroad-highway grade crossing, the following criteria will apply:

- Safety
- Necessity for rail and vehicle traffic
- Alternate routes
- Effect on rail operations and expenses

- Excessive restriction to emergency type vehicles resulting from closure
- Closure of one or more public crossings to offset opening a new crossing
- Design of the grade crossing and road approaches
- Presence of multiple tracks and their effect upon railroad and highway operations

STEPS IN THE ADMINISTRATIVE PROCESS

The function of facilitating the public highway-rail grade crossing application process is conducted by the Central Rail Office with the following steps:

- The Central Rail Office reviews the application to ensure that all necessary information is provided and the crossing is a public, at-grade rail crossing.
- The Central Rail Office acknowledges receipt and seeks a response to the application from all affected parties.
- The Central Rail Office does preliminary evaluation. Applicant must establish compliance with criteria in Rule 14-57.012, FAC.
- The Central Rail Office may facilitate negotiation to resolve differences.
- If the application meets Rule 14-57.012, Florida Administrative Code criteria, and is agreed upon by all parties, the Central Rail Office will draft a Stipulation of Parties.
- This agreement outlines each party's responsibilities. The execution of the Stipulation of Parties serves as a Final Order and permit to open or close the crossing.
- If the parties cannot agree through a Stipulation of Parties, the Central Rail Office will issue a Notice of Intent to permit or deny the opening or closure of the crossing based on data submitted in the application process.
- The Notice of Administrative Hearing Rights is submitted to all parties with the Notice of Intent, allowing 21 days in which to request an administrative hearing.
- Acceptance of the Notice of Intent by all parties, or failure to file a request for a hearing in accordance with Chapter 120.57, Florida Statutes, by the petitioning party will result in the execution and distribution of a Final Order by the Department.
- If an administrative hearing is requested within 21 days, the Department will refer the petition to the Division of Administrative Hearings for scheduling.
- An Administrative Law Judge conducts a hearing and issues a Recommended Order.
- A Final Order is then executed by the Department Secretary.
- Upon completion of the opening or closure, the District Rail Coordinator will inspect the site for compliance with the Department's standards. Photos are provided to the Central Rail Office.

- Following the completion of the project, a US DOT Grade Crossing Inventory Form is submitted to the Central Rail Office and the Federal Railroad Administration by the District Rail Coordinator or Applicant. Crossing data is entered into the Department RHCI by the District.

CHAPTER 5

RAILROAD SAFETY INSPECTION PROGRAM

INTRODUCTION

The Department Railroad Safety Inspection Program participates in the National Railroad Safety Program to promote safety in all areas of railroad operations to reduce deaths, injuries, and damage to railroad property. The State Railroad Safety Inspection Program helps to ensure railroad safety for the benefit of railroad employees and Florida residents, visitors, and commerce.

The Department Railroad Inspectors, certified by the Federal Railroad Administration (FRA), compliment the inspection activities of Federal Inspectors in the state in compliance with the Code of Federal Regulations (CFR) 49 Part 212 - State Safety Participation Regulations.

RAILROAD SAFETY INSPECTORS

Railroad Safety Inspectors conduct inspections and activities in the disciplines of hazardous materials, motive power and equipment, operating practices, signal and train control, and track inspections. Overall, Program Inspectors:

- Receive training, certification, and laptop computers from FRA
- Conduct inspections throughout the state and complete at least one Inspection Report for each day of inspections. The reports will be:
 - A list of the number of units inspected
 - A detail report of any defects or violations
 - Sent in a timely manner to FRA and the railroad
- Inspect Amtrak, commuter rail operations, Class I – III carriers, seaport terminal switching companies, and tourist railroad(s)
- Provide information and guidance to railroads for compliance with Federal regulations
- Inspect businesses that ship, receive, or trans-load hazardous materials
- Recommend civil penalties for non-compliance with Federal regulations
- Conduct complaint investigations
- Conduct incident/collision investigations and support the FRA and National Transportation Safety Board investigations
- Conduct special projects and audits with the FRA and Federal Inspectors working in Florida
- Assist the Department's Rail Office and District Rail Coordinators as necessary

HAZARDOUS MATERIALS INSPECTOR

The Railroad Safety Inspector for Hazardous Material (RSI-HM) conducts inspections under CFR 49 Parts 171 – 174 and Title 49 United States Code Chapter 51 (Federal regulations for rail transport of hazardous materials) in cooperation with FRA, Homeland Security, the Transportation Security Agency, and local authorities

The Railroad Safety Inspector for Hazardous Material (RSI-HM) reviews industry waiver requests and conducts statewide inspections for hazardous material compliance in the following areas:

- tank cars and containers in railroad yards
- trains (inclusive of ammunition trains)
- businesses
- trans-loading facilities
- shipping papers
- hazardous materials placards
- placement of hazardous materials placards in trains
- required documentation
- industry compliance with training requirements
- training documentation for employees
- hazardous materials accidents and incidents

MOTIVE POWER AND EQUIPMENT

The Railroad Safety Inspector for motive power and equipment (RSI-MP&E) conducts inspections throughout the state on passenger locomotives and cars, freight locomotives, and industries that conduct inspections and repairs of railroad rolling stock. The Federal regulations for equipment inspection include 49 CFR Parts 215, 223, 229, 231, 232, 238 and 239.

The RSI-MP&E ensures compliance with:

- freight car safety standards
- safety glazing standards for locomotives and passenger cars
- locomotive safety standards
- railroad safety appliance standards
- brake system safety standards
- passenger equipment safety standards
- passenger train emergency preparedness

OPERATING PRACTICES

The Railroad Safety Inspector for Operating Practices (RSI-OP) is responsible for ensuring compliance with operational regulations found in 49 CFR Parts 214, 217, 218, 219, 220, 221, 222, 225, 228, 232 and 240. Inspections include compliance in the following areas:

- railroad operating and safety rules
- Federal regulations concerning training and testing of operating employees
- protection of employees working on track or equipment
- drug and alcohol prohibitions
- railroad communications
- train identification

- use of locomotive horns
- accident/incident and injury reporting
- hours of service for operating employees
- secure unattended equipment
- engineer certification

SIGNAL AND TRAIN CONTROL

The Railroad Safety Inspector for signal and train control (RSI-S&TC) conducts statewide inspections for compliance with 49 CFR Parts 214, 228, 234, and 236. In addition to signal and train control inspections, the RSI-S&TC works with railroad signal personnel to conduct periodic tests on signal equipment. The RSI-S&TC also participates in the Department's highway-rail grade crossing diagnostic field reviews for signal safety enhancements.

Railroad Safety Inspections include:

- highway-rail grade crossing signals
- railroad wayside signals
- cab signaling (wayside and locomotive apparatus)
- Positive Train Control systems

TRACK

The Railroad Safety Inspector (RSI-Track) conducts track inspections to ensure that railroads meet minimum track standards in compliance with 49 CFR Parts 213 and 214. Additionally, the RSI-Track conducts bridge and roadway worker inspections. Track inspections may be conducted by:

- hi-rail vehicles that travel on the track
- walking inspections
- inspections from FRA geometry cars
- observations made while riding the locomotive or rear car of passenger trains

CHAPTER 6

FLORIDA RAIL SYSTEM PLAN

INTRODUCTION

The Department is responsible for developing the Florida Rail System Plan. According to Section 341.302(3), Florida Statutes, the rail system plan is to include an identification of priorities, programs, and funding levels required to meet statewide needs. The plan must be updated every five years and cover both passenger rail service and freight rail service. The plan must be consistent with other transportation planning the Department is conducting in recognition of the role that rail plays in the State's overall transportation system.

The Department adopted a two-step approach to developing a Rail System Plan that meets the various State and Federal requirements. The first step is the development of a Policy Element to the Plan followed by a second step developing an Investment Element.

- **The Policy Element:** This document, the Policy Element, establishes a vision for passenger and freight rail transportation in Florida and a policy framework of goals, policies, and strategies to guide future state rail investments and decisions.
- **The Investment Element:** The Investment Element identifies an inventory of needs, establish priorities for the investment of state funds using the policy framework of the Policy Element, and sets forth future actions steps necessary to implement the plan.

DEFINITIONS

- **American Recovery and Reinvestment Act (ARRA):** An economic stimulus package enacted by the Congress in February 2009. The stimulus was intended to create jobs and promote investment and consumer spending during the recession of 2008 and 2009.
- **Commuter Rail Service:** A passenger rail transport service between a city center, and outer suburbs and commuter towns or other locations that draw large numbers of commuters – people who travel on a daily basis. Trains operate following a schedule, at speeds varying from 50 to 200 km/h (30 to 125 mph). Distance charges or zone pricing may be used.
- **Florida Transportation Plan:** The Florida Transportation Plan (FTP) establishes long range goals to provide a policy framework for expenditure of federal and state transportation funds in Florida. Every five years, the Department takes the lead in updating this plan to respond to new trends and challenges to meet the future mobility needs of Florida's residents, visitors and businesses.
- **Freight Rail Service:** A type of rail service comprised of a group of freight cars hauled by one or more locomotives on a railway, ultimately transporting cargo between two points as part of the logistics chain. Trains may haul bulk material, intermodal containers, general freight or specialized freight in purpose-designed cars.
- **High-Speed Rail Service:** A type of passenger rail transport that operates significantly faster than the normal speed of rail traffic. The International Union of Railways defines high-speed rail as systems of rolling stock and infrastructure which regularly operate at

or above 250 km/h (150 mph) on new tracks, or 200 km/h (120 mph) on existing tracks. A definitive aspect of high speed rail is the use of continuous welded rail which reduces track vibrations and discrepancies between rail segments enough to allow trains to pass at such high speeds.

- **Intercity Passenger Rail Service:** A passenger rail transport service that covers longer distances than commuter or regional trains.
- **Passenger Rail Investment and Improvement Act (PRIIA):** Federal legislation that strengthens the US passenger rail network by tasking Amtrak, the USDOT, FRA, States, and other stakeholders in improving service, operations, and facilities. PRIIA focuses on intercity passenger rail, including Amtrak's long-distance routes and the Northeast Corridor (NEC), state-sponsored corridors throughout the Nation, and the development of high-speed rail corridors.
- **Passenger Rail Service:** A type of rail service which includes passenger-carrying vehicles. It may be a self-powered multiple unit or railcar, or else a combination of one or more locomotives and one or more unpowered trailers known as coaches, cars, or carriages. Passenger trains travel between stations or depots, at which passengers may board and disembark. In most cases, passenger trains operate on a fixed schedule and have superior track occupancy rights over freight trains.

PRIIA AND OTHER FEDERAL REQUIREMENTS

- In 2008, Congress passed the Passenger Rail Investment and Improvement Act (PRIIA) requiring states to prepare a State Rail Plan to be eligible for federal funding and defining the elements required to be in a plan.
- The American Recovery and Reinvestment Act (ARRA), passed by Congress in 2009, requires projects funded using Intercity Passenger Rail Service Corridor Capital Assistance (Section 301) funding be included in a State Rail Plan.
- 49USC22102 requires states that receive federal financial assistance for state rail projects establish an adequate plan for rail transportation in the state and a suitable process for updating, revising, and modifying the plan.
- 49USC227 establishes the guidelines for preparing state rail plans.

FLORIDA RAIL SYSTEM PLAN LEGAL REQUIREMENTS

- The requirements for developing a State rail plan are as follows:
 - (1) Florida State Statute, Chapter 341.302(3) establishes the authority of the Department's rail office to prepare, maintain, coordinate, and administer the plan;
 - (2) It is the Department secretary's authority to approve the plan;
 - (3) The State's approved plan is to then submitted to the US Secretary of Transportation for review; and
 - (4) The initial plan shall be completed no later than January 1, 2011, and be revised and resubmitted every 5 years for re-approval by the US Secretary of Transportation.

- The purposes of a State rail plan are as follows:
 - (1) Set forth the State policy regarding freight and passenger rail transportation, including commuter rail operations, in the State.
 - (2) Establish the period covered by the State rail plan.
 - (3) Present priorities and strategies to enhance rail service in the State that benefits the public.
 - (4) Serve as the basis for Federal and State rail investments within the State.

- Florida's Rail System Plan shall be coordinated with other State transportation planning goals and programs and set forth rail transportation's role within the State transportation system.

- The Department shall provide adequate and reasonable notice and opportunity for comment and other input to the public, rail corridors, commuter, and transit authorities operating in, or affected by rail operations within the State, units of local government, and other interested parties in the preparation and review of the State rail plan.

- The Department shall review the freight and passenger rail service activities/initiatives proposed by regional planning agencies, regional transportation authorities, and municipalities both within the State and with neighboring states in the Southeast U.S. and shall include any recommendations made by such agencies, authorities, and municipalities as deemed appropriate by the State.

FLORIDA RAIL SYSTEM PLAN CONTENT

Florida's rail system plan shall, at a minimum, contain the following:

- 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 in the Florida Transportation Plan.
- A review of all rail lines within the State, including the proposed high-speed rail corridors and significant rail line segments not currently in service.
- A statement of the State's passenger rail service objectives, including minimum service levels, for rail transportation routes in the State.
- 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.
- A long-range rail investment program for current and future freight and passenger infrastructure in the State.
- 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.
- An identification of rail infrastructure issues within the State that reflects consultation with all relevant stakeholders.
- A review of major passenger and freight intermodal rail connections and facilities within the State, including seaports, and prioritized options to maximize service integration and efficiency between rail and other modes of transportation within the State.

- A review of publicly funded projects within the State to improve rail transportation safety and security.
- 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.
- 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.
- A statement that the State is in compliance with the requirements of 49CFR22102.
- A long-range rail investment program should be included in a State rail plan that shall, at a minimum, including the following matters:
 - A list of any rail capital projects expected to be undertaken or supported in whole or part by the State.
 - A detailed funding plan for those projects.
- A list of rail capital projects should be included in a State rail plan that shall 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.
 - 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 not-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.

CHAPTER 7

RAIL EMERGENCY MANAGEMENT PLAN

INTRODUCTION

The Rail Emergency Management Plan provides guidance for statewide planning and response to railroad systems and resources before, during, and after an emergency or disaster situation.

RESOURCES

- Florida Department of Transportation (FDOT)
- Transportation Emergency Operation Center (TEOC)
- State Emergency Operations center (SEOC),
- Emergency Support Functions 1 (ESF 1) of Florida Division of Emergency Management
- Federal Railroad Administration (FRA)
- Federal Highway Administration (FHWA)
- Federal Emergency Management Agency (FEMA)

ACTIVITIES

The Central Office Rail Manager will assign Central Rail Office staff specific rail functions during an emergency/disaster. Rail resources coordinated by the Central Rail Office will be focused on the following activities:

- Plan, coordinate, and implement appropriate preventative measures for emergency disaster situations;
- Work with TEOC, affected Railroads, and District Rail Coordinators.
- Implement a Department post emergency/disaster field review and assessment of highway-railroad grade crossings, led by District Rail Coordinators.
- Determine highway-rail grade crossings impacted by emergency/disaster.
- Coordinate rail emergency or disaster requirements for state and federal funds with District Rail Coordinators, FHWA, FEMA, and FRA.
- Provide data to TEOC, in order to prepare maps of the operational status of rail lines during the disaster recovery period.

ORGANIZATION

- Information on the railroads' operational status will be collected in cooperation with the FRA and will be relayed to TEOC.
- The Central Office Rail Manager, or designee, will serve as the primary point of contact for railroad-related issues in support of TEOC, ESF-1, and SEOC.

COMMUNICATION

- Central Rail Office will coordinate communications with Railroads, FRA and Rail Industry officials through a single point of contact, for resources to be prioritized and directed to areas of greatest need. Railroads and FRA will provide supplemental information on disaster damages and rail system's operating status for preparation of up-to-date maps for TEOC and emergency management.
- Central Rail Office will maintain a repository of contact information for rail representatives.

RECOVERY:

- Central Office Rail Manager will assign available Department Rail Inspectors to assist FRA and rail industry in initial assessment of damage to rail lines.
- Central Office Rail Manager will designate Department Rail Inspector(s) to team with appropriate District Rail Coordinator(s) in emergency/disaster areas.
- Field reviews will include a minimum of two (2) photographs of the damage and the completion of an assessment of rail crossing signal damage prior to repairs.

COORDINATION

- Central Rail Office will maintain a list of candidate crossings that may be temporarily closed.
- Once temporary crossing closures are implemented, lists will be provided to local law enforcement agencies, emergency services, hospitals, public works, railroads, and etc.

WORK PROGRAM MANAGEMENT:

- Emergency/disaster must be declared by the Governor before the Department can receive reimbursement for work performed after the event. Work performed off the State Highway System will not be covered under FHWA Emergency Relief (ER) funds.
- Central and District Work Program Development Offices will coordinate with FHWA and FEMA on repair and replacement funding. A lump sum payment agreement will be completed by each District Rail Coordinator.
- The Central Rail Office will facilitate funding reimbursement following the proper paperwork submittal by the District(s). District Rail Coordinator will work with FHWA, FEMA, railroads, and local communities on reporting and funding eligibility.

CHAPTER 8

USE OF LOCOMOTIVE HORNS AT HIGHWAY-RAIL GRADE CROSSINGS AND QUIET ZONE APPLICATION PROCESS

INTRODUCTION

The *Use of Locomotive Horns at Highway-Rail Grade Crossings (49 CFR Parts 222 and 229)* is established to maintain a high level of public safety, respond to the concerns of communities seeking relief from unwanted horn noise, and establish requirements for sounding locomotive horns at rail crossings. In compliance with 49 CFR Part 222, the application process for establishing Quiet Zones, this chapter provides guidance to all parties participating in the application process. Public Authorities applying for a Quiet Zone should contact the Federal Railroad Administration (<http://www.fra.dot.gov/rpd/freight/1318.shtml>).

DEFINITIONS

- **Alternative Safety Measure (ASM)** – A safety system or procedure provided by the appropriate traffic control authority, which, after a review and analysis, is determined by the FRA to be an effective substitute for the locomotive horn at specific rail crossings
- **Applicant** – Only the Public Authority (i.e., city, county, or state governmental entity with jurisdictional maintenance responsibility of the public, highway-rail grade crossing) can apply to the FRA for a Quiet Zone. If more than one Public Authority is involved, all must agree to the Quiet Zone.
- **Diagnostic Field Review Team** – A group of trained, qualified experts assembled to assess the physical and operating characteristics and conditions of the rail crossings, within the proposed Quiet Zone, to determine crossing safety requirements for compliance with the Train Horn Rule.
- **Quiet Zone Funding** – All Quiet Zone improvements must be locally funded unless otherwise qualified. Title 23 USC Section 130 funds may not be used for Quiet Zone improvements. The entire rail corridor within the limits of the Quiet Zone should be reviewed to determine the most cost-effective improvements.
- **Public Authority** – City, county, or state governmental entity with jurisdictional maintenance responsibility of the public, highway-rail grade crossing(s) located within the proposed Quiet Zone.
- **Quiet Zone** – A section of a rail line at least one-half mile in length that contains one or more public crossings at which locomotive horns are not routinely sounded.
- **Supplemental Safety Measures (SSMs)** – Engineering improvements at rail crossings within a Quiet Zone that would reduce the risk of a collision at the crossing. SSMs are installed to reduce the risk level to the level that would exist if the train horn was sounded or to a level below the Nationwide Significant Risk Threshold. Approved SSMs include:
 - Permanent closure
 - 4 quadrant gates
 - Gates with channelization devices or median barriers

- One way streets with gates that fully block the street
- Temporary closure

REQUIREMENT TO SOUND THE LOCOMOTIVE HORN

Safety at public highway-rail grade crossings requires locomotive horn use except in quiet zones established and maintained in accordance with 49 CFR Part 222. The Final Rule reduces total noise exposure by setting a maximum horn sounding durational and a maximum horn sound level.

- Railroads must sound the horn 15-20 seconds prior to a train's arrival at the rail crossing, but not more than ¼ mile in advance of the crossing.
- The pattern for sounding the horn remains as two long, one short, one long repeated or prolonged until the locomotive occupies the rail crossing.
- Locomotive engineers may vary this pattern for sounding the horn as necessary where rail crossings are closely spaced.
- The minimum volume level of the train horn is 96 dB(A) and the maximum is 110 dB(A).

QUIET ZONE APPLICATION PROCESS – PUBLIC AUTHORITIES

- Notice of Intent: Public Authorities must provide a written Notice of Intent allowing a 60-day comment period for the Department and railroad. The Notice of Intent will be provided to the following:
 - Federal Railroad Administration
 - All railroads that operate over Quiet Zone rail line
 - The Central Rail Office and District Rail Coordinator(s) responsible for crossing safety
 - The law enforcement authority having control over vehicular traffic at the crossings
 - The state agency responsible for highway safety
 - Landowner(s) of any private crossings within the Quiet Zone
- Public Authorities will coordinate diagnostic field reviews for the Quiet Zone crossings (to include public, private and pedestrian crossings).
- Public Authorities must work with railroads regarding the cost of supplemental safety measures and maintenance.
- Public Authorities will calculate the safety risk by adjusting for increased risk resulting from the silencing of the train horn and decreased risk for safety improvements (i.e., SSMs or ASMs).
- Public Authorities must install safety improvements in compliance with the Manual on Uniform Traffic Control Devices and the *Use of Locomotive Horns at Highway-Rail Grade Crossings (49 CFR Parts 222 and 229)*.
- Notice of Quiet Zone Establishment: When a Quiet Zone has been approved by the FRA, Public Authorities must provide by certified mail (return receipt requested) a Notice of Quiet Zone Establishment to the same recipients of the Notice of Intent (see above), no later than 21 days before the date on which train horns are scheduled to cease sounding. The Notice of Quiet Zone Establishment cannot be served earlier than 60 days after the Notice of Intent was mailed, unless the Notice of Quiet Zone Establishment contains a written statement affirming that written comments and/or 'no comment' statements have been received from each recipient of the Notice of Intent. The Notice of Quiet Zone Establishment will include an accurate and complete USDOT Grade Crossing Inventory Form for each public, private, and pedestrian grade crossing

within the quiet zone that reflects the conditions existing at the crossing before any new SSMs or ASMs were implemented.

QUIET ZONE APPLICATION PROCESS – RAILROADS

- Railroads cannot prohibit the creation of a Quiet Zone.
- Railroads may sound the horn in a Quiet Zone at the sole judgment of the engineer.

QUIET ZONE APPLICATION PROCESS – DEPARTMENT

- Department retains their role relative to engineering standards and ordering implementation of safety improvements.
- Department provides primary expertise for highway-rail crossing safety.
- Department serves as a member of the Diagnostic Field Review Team.
- Department (District Rail Coordinator) will ensure that the RHCI and FRA Grade Crossing Inventory is updated to accurately reflect SSMs and ASMs upon establishment of the Quiet Zone.

NEW QUIET ZONE REQUIREMENTS

- All public crossings must have gates, lights, constant warning time devices, and power-out indicators.
- The inventory information for each crossing in the Quiet Zone must be accurate and complete prior to establishing the Quiet Zone.
- Crossing within the Quiet Zone must comply with Manual on Uniform Traffic Control Devices (MUTCD).
- Private crossing requirements:
 - Any private crossing that allows access to the public, or which provide access to active industrial and commercial private crossings must have a diagnostic field review and are subject to the recommendations of the diagnostic field review team.
 - At a minimum, each approach to every private highway-rail grade crossing within a Quiet Zone shall be marked by a crossbuck, a “STOP” sign, and an advance warning sign that advises the motorist that train horns are not sounded at the crossing (compliant with MUTCD standards).
- Pedestrian crossing requirements:
 - Pedestrian crossings in a Quiet Zone must have a diagnostic field review and are subject to the recommendations of the diagnostic field review team.
 - At a minimum, each approach to every pedestrian grade crossing within a Quiet Zone shall be marked by a crossbuck, a “STOP” sign, and an advance warning sign that advises the pedestrian that train horns are not sounded at the crossing (compliant with MUTCD standards).