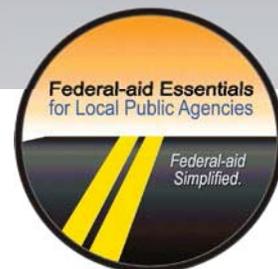


Check out  
the video

## Project Development Preparing the PS&E Railroad Coordination and Certification Requirements

[www.fhwa.dot.gov/federal-aidessentials](http://www.fhwa.dot.gov/federal-aidessentials)

*Agencies are required to certify proper coordination with railroads prior to construction on Federal-aid projects*



Imagine yourself in charge of a Federal-aid project to resurface a two-lane road somewhere in the country. As the paving crew approaches a railroad crossing, a train comes roaring through. This isn't a safe situation, and you realize the railroad was never notified that the crossing was to be repaved. Twenty freight trains pass the crossing each day,



and the railroad won't let you close the track.

This is a real-world situation that can bring construction to

a halt until it's safe and the railroad can plan for disruptions to its operations. When work stops, the delay can add to project costs. These problems can be avoided by coordinating with railroads before construction begins.

Federal-aid projects require a statement, often referred to as the railroad certification, from the State department of transportation, or State DOT, confirming that the appropriate railroad coordination has taken place. This statement is prepared by you as a local public agency, or LPA, and is required for all Federal-aid highway construction projects, including projects that don't involve a railroad. In this video, we will discuss requirements for improving safety at-grade railroad crossings and how



early coordination can help avoid unnecessary delays and project costs.

You may be required to improve an at-grade railroad crossing if the existing traffic control or warning devices do not meet current standards, and the crossing is located either within, or near to, your project.

The best way to determine if your project must address these safety improvements is to look for any railroad-related traffic control devices located within the limits of your project, even if the crossing itself is located outside the project limits. This could include signs, markings, or any other traffic control devices mandated by the *Manual on Uniform Traffic Control Devices*, or the MUTCD. The MUTCD sets the standard for all traffic control devices such as signs, pavement markings and signals used on roadways open to public travel.



When traffic control devices for the crossing don't meet current standards, you are required to expand the scope of the project in order to include all approaches to the crossing and install new devices meeting the current MUTCD requirements.



When any of the following special conditions exist, you may also be required to install automatic gates with flashing light signals at the crossing. These conditions include:



- When multiple tracks either approach or are a part of the railroad crossing
- When there are high volumes of auto or train traffic
- When there are high volumes of either trucks carrying hazardous materials or school buses; when high speed trains are combined with limited sight distances
- When high speed trains are combined with considerable highway or rail traffic
- When unusually restricted sight distance exists for the crossing
- If frequent crashes have occurred
- When a diagnostic team has recommended an improvement

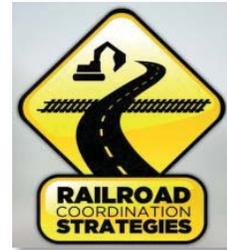
In isolated cases, a diagnostic team of knowledgeable representatives with an interest in the crossing may determine gates with flashing light signals are not appropriate. The determination needs to be provided to the Federal Highway Administration (FHWA) by your State



DOT in order to receive approval for waiving this requirement. For example, consider a crossing where the track is no longer in service, but a high volume of school buses is present due to a nearby school. It is likely that a diagnostic team would determine that gates and flashing light signals are not appropriate in this situation. When improvements to the warning devices for a crossing are necessary, Federal regulation prohibits the crossing from being opened to

unrestricted traffic until an adequate warning system has been installed and is functioning properly. It's important you address these situations as early in project development as possible to avoid delays to your project.

As you develop your Federal-aid project, consider the following coordination strategies:



- Identify any railroad facilities within or near the limits of your project and determine if construction activities will affect the facility. Coordinate with the appropriate railroad operator when applicable.
- Assess the adequacy of existing traffic control devices for railroad crossings within or near the limits of the project. When improvements to traffic control or warning devices for a crossing are required, make sure to incorporate them into your project.
- Coordinate with the railroad company just as you would with a utility to determine what special requirements they may have during construction. This may include providing liability insurance, monitoring or hiring a flagger to be present to help construction run more smoothly.

After completing the design work, every Federal-aid project must reach a major milestone before construction can be authorized. This milestone is the approval of your project's plans, specifications and estimates more commonly referred to as a PS&E. A railroad certification is required to be submitted with your project's PS&E, confirming the appropriate railroad coordination has taken place. A project railroad certification should address one of three possible circumstances:



- **No railroad facilities will be affected by the project.** This is appropriate for projects that won't have an effect on any railroad facilities during construction.
- **All railroad work will be completed prior to the start of construction.** This is appropriate when railroad work is necessary, and will be completed prior to the start of construction.
- **Arrangements are in place to have railroad work undertaken during construction.** In this circumstance, you must also indicate as part of your certification that appropriate notification will be included in the bid proposal notifying all prospective bidders of any railroad work that will occur concurrently with the project construction.



Remember, if an at-grade railroad crossing is located either within or near the limits of a Federal-aid project, then you may be required to improve the safety of the crossing. This is accomplished by installing adequate warning devices, even if it is not part of the original scope of your project. You must also submit a railroad certification for all Federal-aid projects prior to construction.

Providing a railroad certification shows that you have taken steps to prevent costly and unnecessary delays to construction and avoid a dangerous situation from occurring. Your State DOT can help you determining whether a crossing near or within your project limits must be addressed. Remember to coordinate early and provide the project railroad certification so you can help avoid problems during construction and keep your project on track.

### Additional Resources

- Information regarding utility-related topics  
<http://www.fhwa.dot.gov/programadmin/utility.cfm>
- Federal regulations that apply to all Federal-aid highway projects prior to authorizing construction  
<http://www.ecfr.gov/cgi/t/text/text-idx?c=ecfr&sid=2aa9ff7d3b3c1b8c415078d3cd51d448&rgn=div5&view=text&node=23:1.0.1.7.23&idno=23#23:1.0.1.7.23.3>
- Utility regulations on Federal-aid projects  
<http://www.ecfr.gov/cgi/t/text/text-idx?c=ecfr&sid=d2af04bfb8dbf21acc92526bb603be4&rgn=div5&view=text&node=23:1.0.1.7.27&idno=23#23:1.0.1.7.27.2>
- Guidance covering broad range of utility-related requirements  
<http://www.fhwa.dot.gov/reports/utlguid/>

The content of this document is not a substitute for information obtained from State departments of transportation, appropriate FHWA Division Offices, and applicable laws. Scenarios have been simplified for emphasis and do not necessarily reflect the actual range of requirements applicable to the scenario or this topic. This document was created under contract number DTFH61-11-D-00024 by the Federal Highway Administration, U.S. Department of Transportation, and is offered to the public to heighten and focus awareness of Federal-aid requirements within the local public agencies community and reinforces the importance of these necessary policies, procedures, and practices.

This companion resource is the script content for the video production of the same name.

## Subpart B—Railroad-Highway Projects

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### Contents

§646.200 Purpose and applicability.

§646.202 [Reserved]

§646.204 Definitions.

§646.206 Types of projects.

§646.208 Funding.

§646.210 Classification of projects and railroad share of the cost.

§646.212 Federal share.

§646.214 Design.

§646.216 General procedures.

§646.218 Simplified procedure for accelerating grade crossing improvements.

§646.220 Alternate Federal-State procedure.

Appendix to Subpart B of Part 646—Horizontal and Vertical Clearance Provisions for Overpass and Underpass Structures

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SOURCE: 40 FR 16059, Apr. 9, 1975, unless otherwise noted.

### §646.214 Design.

(a) *General.* (1) Facilities that are the responsibility of the railroad for maintenance and operation shall conform to the specifications and design standards used by the railroad in its normal practice, subject to approval by the State highway agency and FHWA.

(2) Facilities that are the responsibility of the highway agency for maintenance and operation shall conform to the specifications and design standards and guides used by the highway agency in its normal practice for Federal-aid projects.

(b) *Grade crossing improvements.* (1) All traffic control devices proposed shall comply with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways supplemented to the extent applicable by State standards.

(2) Pursuant to 23 U.S.C. 109(e), where a railroad-highway grade crossing is located within the limits of or near the terminus of a Federal-aid highway project for construction of a new highway or improvement of the existing roadway, the crossing shall not be opened for unrestricted use by traffic or the project accepted by FHWA until adequate warning devices for the crossing are installed and functioning properly.

(3)(i) *Adequate warning devices*, under §646.214(b)(2) or on any project where Federal-aid funds participate in the installation of the devices are to include automatic gates with flashing light signals when one or more of the following conditions exist:

(A) Multiple main line railroad tracks.

(B) Multiple tracks at or in the vicinity of the crossing which may be occupied by a train or locomotive so as to obscure the movement of another train approaching the crossing.

(C) High Speed train operation combined with limited sight distance at either single or multiple track crossings.

(D) A combination of high speeds and moderately high volumes of highway and railroad traffic.

(E) Either a high volume of vehicular traffic, high number of train movements, substantial numbers of schoolbuses or trucks carrying hazardous materials, unusually restricted sight distance, continuing accident occurrences, or any combination of these conditions.

(F) A diagnostic team recommends them.

(ii) In individual cases where a diagnostic team justifies that gates are not appropriate, FHWA may find that the above requirements are not applicable.

(4) For crossings where the requirements of §646.214(b)(3) are not applicable, the type of warning device to be installed, whether the determination is made by a State regulatory agency, State highway agency, and/or the railroad, is subject to the approval of FHWA.

(c) *Grade crossing elimination.* All crossings of railroads and highways at grade shall be eliminated where there is full control of access on the highway (a freeway) regardless of the volume of railroad or highway traffic.

[40 FR 16059, Apr. 9, 1975, as amended at 47 FR 33955, Aug. 5, 1982; 62 FR 45328, Aug. 27, 1997]