

Chapter 12. Railroad and Rail Crossing Coordination

12.1 OVERVIEW

This chapter provides information on the railroad and rail crossing coordination requirements for all certified LPA federal-aid highway construction projects. Railroad coordination includes coordination with “all rail carriers, publicly-owned, private, and common carriers, including line haul freight and passenger railroads, switching and terminal railroads, and passenger carrying railroads such as rapid transit, commuter, and street railroads” (see 23 CFR 646.204, railroad). Even projects that do not involve a railroad must have a completed railroad assurance form submitted with the final PS&E package.

In the sequence of project development, railroad coordination should begin early in the process, generally beginning at approximately 30% design or sooner if possible. Early engagement is highly recommended, as coordinating with railroads and obtaining rail crossing orders can be a lengthy (year-plus) process.

When a project is near a railroad corridor, the LPA must coordinate with the railroad and may need to coordinate with the ODOT Rail Crossing Safety Unit to ensure the project meets safety standards and receives project approvals. This may apply even when the project does not directly cross the railroad. There are several possible components to railroad coordination, including but not limited to:

- Crossing orders
- Railroad engineering approval of the project work
- Easement acquisition
- Railroad agreements, permits, and rights of entry
- Railroad Flagging
- Construction specifications / special provisions

These components are covered in more detail below. The State Railroad Liaison in the ODOT Statewide Project Delivery Branch acts as a single point of contact with the railroads for ODOT construction projects and is a good source of information for the LPA when coordinating with the railroads in Oregon. The Rail Crossing Safety Unit in the ODOT Commerce and Compliance Division is the authority and point of contact for requesting and approving rail crossing orders in Oregon.

12.2 APPLICABLE LAWS, RULES, REGULATIONS

The following laws, rules, and regulations contain key provisions affecting projects involving railroad coordination and rail crossing safety requirements:

12.2.1 Federal

- 23 USC 109(e), Installation of Safety Devices
- 23 CFR 140, Subpart I, Reimbursement for Railroad Work
- 23 CFR 635, Subpart C, Physical Construction Authorization
- 23 CFR 646, Subpart A, Railroad-Highway Insurance Protection
- 23 CFR 646, Subpart B, Railroad-Highway Projects
- 23 CFR 635.410, Buy America requirements

12.2.2 State of Oregon

- ORS Chapter 267, Mass Transit Districts, Transportation Districts
- ORS Chapter 368, County Roads
- ORS Chapter 824, Railroads
- OAR Chapter 741, Division 100-200, Rail Division

12.2.3 Coordination Requirements for FHWA Construction Authorization

Per 23 CFR 635.307, *Coordination*, requires railroad work to be coordinated with the physical construction to prevent unnecessary delay or cost for the physical construction. Per 23 CFR 635.309, *Authorization*, lists conditions for authorizing physical construction. In addition, 23 CFR 635.309(b) requires a statement that no railroads are affected by the project, that railroad work has been completed, or that arrangements have been made to complete the railroad work during highway construction. (Refer to section 12.7 Railroad Assurance below.)

FHWA has a longstanding policy of disallowing participation in time extensions and delay claims associated with utility and railroad work or right of way clearances because of the requirements to assure proper coordination with these third parties prior to construction authorization.

12.2.4 Adequate Warning Devices

Adequate warning devices must be installed and functioning properly at railroad-highway grade crossings located within the limits of or near the terminus of a federal-aid highway project before the crossing can be opened for unrestricted use by traffic or before the project can be accepted. (See 23 USC 109(e)(10 and 23 CFR 646.214.) Refer to the FHWA resources in section 12.9 and to the ODOT Rail Crossing Safety processes outlined in section 12.4 below.

12.3 REIMBURSEMENT FOR RAILROAD COSTS

When railroad improvements are affected by transportation projects, the railroad may be entitled to reimbursement of the costs to repair or relocate those improvements since those repairs must be completed by the railroad's forces. Only eligible improvements may receive federal reimbursement. Refer to 23 CFR 140, Subpart I, Reimbursement for Railroad Work.

12.3.1 STIP Programming, Federal Authorization, and ODOT Notice to Proceed

For the work to be eligible for federal reimbursement, the LPA must ensure the costs for any railroad-related work are programmed in the STIP under the appropriate phase of work, are covered by the supplemental project agreement, have FHWA authorization, and the LPA has received notice to proceed from the ODOT project contact for the applicable phase of work.

12.3.2 Progress Billings

Reimbursement can only be made from a submitted invoice that is accompanied by sufficient support documentation showing actual costs spent. Only approved actual costs, additive rates, and overhead expenditures spent on the activity being reimbursed are eligible for reimbursement. Railroad project development and design work should be invoiced under the preliminary engineering phase of the project, and construction work invoiced under the construction phase of the project. Because rail protection is required during a project's construction, the reimbursement of flagging costs is generally paid by the project's construction unit and coordinated by the contractor. Note, reimbursable construction work performed by the railroad may need to be reimbursed under a separate "other" STIP phase. It is important for the LPA to confirm how construction work performed by the railroad will be reimbursed prior to agreeing to or authorizing such work.

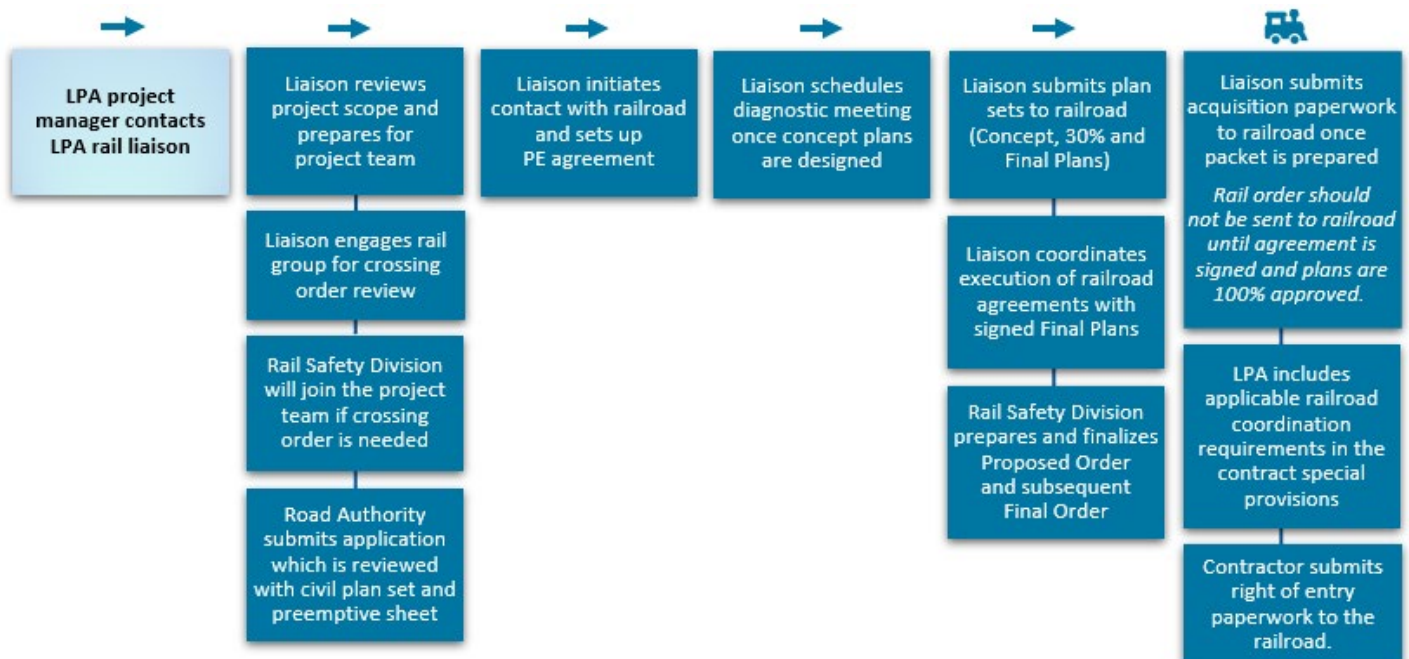
The progress billing requirements of Section C, Chapter 3 of this manual apply to all railroad costs for which the LPA seeks federal reimbursement.

12.4 PROJECT DEVELOPMENT

The LPA is responsible for all the following:

- Providing a notice to proceed to the railroad for project development work (following FHWA funding authorization and ODOT notice to proceed to the LPA for any work to be reimbursed with federal funds). See also section 12.3.1 above.
- Entering into any needed contracts and agreements with the railroad(s)
- Participating in the diagnostic review with the railroad and the ODOT Rail Crossing Safety Unit
- Submitting plans to the railroad
- Seeking and receiving railroad review and approvals
- Coordinating relocation or installation of railroad improvements
- Completing the required railroad assurance form

For LPA projects, the “LPA rail liaison” is whomever the LPA assigns to this position on the project team. For some LPAs, this may be the same person as the LPA project manager. Below is a basic flow chart for rail coordination on projects **within 500 feet of a railroad**.



12.4.1 Project Initiation

When a transportation project is within 500 feet of railroad property or is within the railroad right of way, or the project has the potential to foul the tracks, coordination with the railroad is required. If the project will require the use of railroad property or adjustments to railroad facilities, an agreement is required. The LPA should contact the railroad to start the project coordination process. If needed, the ODOT State Railroad Liaison can provide guidance about the process, but the LPA will need to secure its own access.

12.4.2 Diagnostic and Project Meetings

For at-grade railroad crossings, in coordination with the ODOT Rail Crossing Safety Unit, the LPA should schedule an in-person, on-site diagnostic meeting with the road authority, the project leader, the railroad, and project team members. The LPA should send the concept plans to the railroad prior to the diagnostic meeting. The LPA is responsible for capturing official meeting notes and distributing the notes upon completion of the site visit. Review and approval of the LPA's diagnostic notes are required by all who attended the diagnostic meeting. The at-grade crossing plans are designed to meet the requirements of the diagnostic notes. The plans can be sent to the diagnostic team for review throughout the design.

For grade-separated crossings, a diagnostic meeting is not required, but the LPA may request onsite project meetings as needed.

When transportation projects affect or influence improvements located on railroad right of way, the affected improvements may require repair, upgrade or relocation. Railroads generally require that their own personnel be used to perform any repairs, modifications or relocation of their facilities. Reimbursements for these activities are governed by 23 CFR 140.914.

12.4.3 Crossing Order Applications

The ODOT Rail Crossing Safety Unit will assist with Crossing Order needs within their jurisdiction. The Rail Crossing Safety Unit's jurisdiction extends a distance equal to the safe stopping distance, for the posted or statutory speed, measured back from the location of the stop clearance lines. The Rail Crossing Safety Unit's jurisdiction for grade-separated crossings will be at the crossing only. Per Oregon Revised Statutes (ORS) 824.202, the Rail Crossing Safety Unit has authority over all rail crossings including but not limited to safety, placement of warning devices, geometry of the road approaches and any other appurtenances to a crossing.

If a highway or related project is within the state's jurisdiction, the LPA must notify the ODOT project contact and coordinate with the Rail Crossing Safety Unit to discuss any changes included in the project. Contact these parties as early as possible in the project scoping phase. All LPAs and railroads needing to work within this jurisdiction, which may include an alteration, closure or addition of a crossing, are required to contact the ODOT Rail Crossing Safety Unit prior to any work. This unit will work through the process of issuing a Crossing Order for the changes.

A Crossing Order is required if there are any changes to the layout of the crossing as described in the Crossing Order application. If it is determined that a Crossing Order will be required, the LPA project team will prepare a draft Crossing Order application and send it to the Rail Crossing Safety Unit for approval.

The final application must include a preemptive plan sheet and civil drawings, be stamped by a registered engineer, and be signed and dated by the person with funding authority. The Rail Crossing Safety Unit will review the application, write the proposed order and send it to all applicable parties. The parties have 60 days to review the proposed order and provide comments.

12.4.4 Plan Reviews

The LPA sends the railroad the project plans sheets that are specific to the areas affecting the railroad. For an at-grade crossing, plans are submitted when they are stamped final plans. Typically, for grade-separated projects, this includes concept plans, DAP/preliminary plans (30%), advanced plans (60%), and stamped final plans. The railroad will provide comments on each plan submittal. Estimated rail plan review time is 45 to 60 days. The LPA addresses railroad comments in the next plans submittal.

12.4.5 Property Acquisition

Obtaining property from the railroad requires the purchase of an easement. This cannot happen until project engineering is approved by the railroad. Survey exhibits and descriptions will be needed for the property, and a Construction and Maintenance Agreement must be executed to detail the new responsibilities of the easement. Each railroad has its own process to follow for acquisitions.

The LPA is responsible for the acquisition of any railroad-owned property right needed for a transportation project, subject to the right of way co-certification requirements in Section C, Chapter 7 (Right of Way) of this manual. The acquisition of railroad-owned property is to be documented in the Certified LPA Railroad Agreement Assurance (form 734-5285) and on the ODOT Right of Way Certification (form 734-5257) as property acquired under agreement. When acquiring a property right from a railroad, the acquisition process must follow the applicable ORS, OAR, 23 CFR 646.216(c), the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), and the ODOT Right of Way Manual. For counties, ORS 368.116 provides the right to acquire property owned by the railroad. For cities, the eminent domain process provides the means of acquiring property owned by the railroad. The LPA is responsible for working with their right of way staff or consultants on the following:

- Providing input to a project's scope
- Obtaining right of way entry for project related investigations
- Obtaining legal descriptions and maps of the acquisition properties
- Obtaining appraisals
- Making and tracking acquisition offers

Where easement acquisition from the railroad is not complete prior to PS&E, a public interest finding as provided in 23 CFR 635.309(c)(3) and approved by ODOT and FHWA, is required before FHWA can authorize physical construction under a contract or through force account work. Approvals for this public interest finding (referred to as a "Cert 3 Finding" in the ODOT Right of Way Manual) must also be documented on the ODOT Right of Way Certification form.

For more information on right of way co-certification requirements for certified LPA projects, refer to Section C, Chapter 7 (Right of Way) of this manual and to the ODOT Right of Way Manual, sections 2.582 (Right of Way Certification Documentation) and 2.583 (Right of Way Certification with Holdouts and Cert 3 Finding Criteria).

12.5 RAILROAD AGREEMENTS

Where construction of a federal-aid project requires use of railroad properties or adjustments to railroad facilities, there must be an agreement in writing between the local agency and the railroad company that meets the requirements of 23 CFR 646 and 23 CFR Part 140 Subpart I.

The LPA is responsible for the development and execution of all railroad agreements when a project impacts railroad-owned property or its operations. The form of agreement(s) needed will vary by the railroad and type of work to be performed. Common issues to be addressed by agreement include construction, maintenance, rail services, flagging services, licensing, and permits or rights of entry. At a minimum the items listed at 23 CFR 646.216 must be included in the agreement. Refer to section 4 of the ODOT Oregon Railroad Manual for additional details regarding railroad agreements.

Negotiations with railroads can be lengthy and intricate, so it is important to begin discussions with railroads at the earliest stage of project development. ODOT can assist with the agreement process, however, the LPA is a party to the agreement with the railroad when the LPA is the road authority. Each railroad may have a template to use as a starting point. If ODOT is the road authority and therefore a party to the agreement, ODOT's template must be used.

12.6 SPECIFICATIONS

In accordance with 23 CFR 635.309(b), when the LPA determines completing the railroad work before the start of highway construction is not feasible or practical, the project specifications must include the applicable special provisions with respect to railroad coordination requirements for the construction contractor. The ODOT Boilerplate Special Provisions include railroad-specific provisions. For some railroads, such as Union Pacific, the applicable special provisions depend on the type of work and type of agreement with the railroad for the project.

12.7 RAILROAD ASSURANCE

The Certified LPA Railroad Agreement Assurance (form 734-5285) ("railroad assurance") is required to be submitted to ODOT as part of the final PS&E package for all federal-aid highway construction projects. The purpose of this form is to document project compliance with the railroad coordination and assurance requirements in 23 CFR 635.307 and 635.309(b).

By completing and signing the railroad assurance, the LPA assures ODOT and FHWA that all coordination with any affected railroad(s) has taken place. ODOT does not co-sign the railroad assurance form. Before signing the railroad assurance form, the LPA rail liaison and the LPA quality control coordinator must ensure one or more of the following have taken place, as applicable:

- The project has been reviewed and confirmed that no railroads are affected by the project
- All agreements are executed for work to be done by the railroad
- Crossing Orders have been issued
- Permission has been granted by the railroad when work is within railroad property
- The correct railroad-related specifications have been included in the bid documents indicating the contractor requirements
- License agreements have been secured when a utility (such as an IT line) or culvert will affect railroad property

While submitting the railroad assurance form is not required until PS&E, LPAs are encouraged to begin preparing the form prior to completion of the design acceptance package (DAP) at approximately 30-45% design. This is to help the project development team ensure the needed railroad coordination documentation is on track to be completed by PS&E.

12.8 RAILROAD CONSTRUCTION

12.8.1 Construction Requirements

The LPA is responsible for ensuring the following non-exhaustive list of items generally required for construction on all projects that include railroad work is completed:

- Onsite railroad preconstruction conference with the railroad occurred prior to beginning construction. The preconstruction conference must be attended by the LPA, railroad, flagging company, contractor, subcontractor(s), and the road authority (if the LPA is not the road authority).
- Contractor's safety training is completed following agreement and specification requirements
- The applicable list of design and construction submittals is approved by the railroad
- The construction and maintenance (C&M) agreement or maintenance construction letter (MCL) is executed
- The right of entry or contractor's endorsement (or other permit) is executed or approved
- The railroad flagging agreement is executed, and coordination will be on-site
- Required insurance certificates are in place
- Project schedule provided to the railroad (includes a look-ahead schedule per railroad requirements)
- Safety action plan posted at job site
- Use of correct personal protective equipment (PPE) per railroad training
- Fire prevention plan is in place
- Training badges on all personnel are completed

12.8.2 Railroad Submittals and Approvals

The railroad may require the LPA or the LPA's contractor to submit various plans and documents to the railroad for approval during construction. Refer to the applicable railroad agreement(s) and manuals for project submittal requirements. The following are examples of submittals that may be required:

- Cutting/shoring
- Setting girders
- Final inspection
- False work plan
- Demolition / removal plan / work sequence
- Containment plan
- Erection plan
- Erosion control plan

12.9 RESOURCES

For situations not covered here, or for other related questions, contact the ODOT project contact, [State Railroad Liaison](#), or [Rail Crossing Safety Unit](#) as applicable.

Provider	Resource Title	Description	Link
eCFR	23 CFR Part 635, Subpart C-Physical Construction Authorization	FHWA, Code of Federal Regulations	https://www.ecfr.gov/current/title-23/chapter-I/subchapter-G/part-635/subpart-C?toc=1
eCFR	23 CFR Part 646-Railroads	FHWA, Code of Federal Regulations	https://www.ecfr.gov/current/title-23/chapter-I/subchapter-G/part-646?toc=1
FHWA	Railroad Coordination and Certification Requirements	Federal-Aid Essentials Video (under Preparing the PS&E)	https://www.fhwa.dot.gov/federal-aidessentials/catmod.cfm?id=10
FHWA	Railroad Coordination on Federal-Aid Highway Projects	Memorandum (July 31, 2015)	https://www.fhwa.dot.gov/federalaid/150731.cfm
FHWA	Railroads - Construction Program Guide	Federal-Aid Guide (includes regulations, policy, guidance, and training)	https://www.fhwa.dot.gov/construction/cqi/railroad.cfm
ODOT	Boilerplate Special Provisions	Webpage (includes examples of railroad construction agreements and boilerplate specifications for construction, available under Part 00000-Documents and Forms)	https://www.oregon.gov/odot/Business/Pages/Special-Provisions.aspx
ODOT	Certification Guidance and Forms	Webpage (includes sample notice to proceed letters and example Rail Crossing Order)	https://www.oregon.gov/odot/LocalGov/Pages/Certification-Guidance-Forms.aspx
ODOT	Certified LPA Railroad Agreement Assurance	Form 734-5285	https://www.oregon.gov/odot/Forms/20DOT/7345285.docx
ODOT	Notice to Proceed with Project Development	Sample	https://www.oregon.gov/odot/LocalGov/Documents/Example-%20Notice%20to%20Proceed%20PE%20with%20Project%20Development%20for%20Railroads.pdf
ODOT	Oregon Railroad Manual	Manual	https://www.oregon.gov/odot/ROW/Rail/Railroad-Manual.pdf

Resources continued

Provider	Resource Title	Description	Link
ODOT	Rail Crossing Safety	Webpage (includes information on rail crossings, ODOT contacts, crossing applications and laws)	https://www.oregon.gov/odot/MCT/Pages/Rail-Crossing-Safety.aspx
ODOT	Rail Forms and Publications	Webpage	https://www.oregon.gov/odot/MCT/Pages/Rail-Forms.aspx
ODOT	Railroad Coordination Program	Webpage (includes information on cooperation between road and railroad authorities, when transportation projects impact railroad) property and facilities statewide)	https://www.oregon.gov/odot/row/pages/railroad.aspx