



7-04.1 GENERAL. Projects involving work on or over railroad right of way or involving adjustment of railroad facilities require timely submittals to the Central Office in order to avoid letting delays. The district is responsible for providing the necessary plans and details to Multimodal Operations Division where negotiations with railroads are conducted. .

7-04.2 PRELIMINARY PLANS.

7-04.2 (1) ROADWAY PLANS. Four sets of any portion of the roadway plans that affect a railroad including title sheet, plan-profile sheet, cross section sheets, and any special sheets are submitted for further handling with the railroad on all projects affecting railroad operating right of way or facilities. If more than one railroad company is involved, the right of way and facilities of each company are to be identified separately. These plans show all existing railroad facilities within 500 ft. [150 m] of the crossing, such as switch points, signals, drainage structures, right of way lines, pole lines, restriction to sight distance, intersection of centerlines equated to railroad stationing (or mile post) and highway stationing, angle of intersection and the land tie to the nearest corner, as well as adjustments that are required. On the plan sheets, all notes pertinent to work on railroad property, especially those on the proposed handling of drainage, are emphasized by highlighting in yellow. On the cross section sheets railroad right of way lines and the excavation limits on railroad property are outlined in red. Culvert sections are to be furnished at this time for any culverts proposed on railroad right of way. When roadway excavation must be hauled across a railroad track, the district is to furnish the location and width of the crossing required and the quantity of material to be hauled.

This data must be submitted to Multimodal Operations Division at least fourteen months prior to the scheduled date of letting for projects which require major involvement with railroads, such as modification or construction of grade separation structures. Projects, such as rehabilitation, resurfacing, or painting of bridges over railroads, require less time for negotiation. Plans for these projects should be submitted six months before the date of scheduled letting.

7-04.2 (2) GRADE SEPARATION STRUCTURES. The design of railroad-highway grade separations is handled with Central Office Bridge in accordance with Chapter V with copies of all correspondence furnished to Central Office Design. The right angle section to be submitted under Chapter V must extend entirely across the railroad's right of way.

The design lateral clearance is shown in [Figure 5-04.8](#). When a railroad requests or requires a railroad maintenance road, the lateral clearance is increased as shown. The design vertical clearance is 23'-0" [7.0 m]. A greater clearance may be considered at specific locations based on topographic conditions or special situations such as planned electrification. The design clearances are maximum values and lesser clearances which meet the minimum clearances required by state regulation of 22'-0" [6.7 m] vertical and 8'-6" [2.6m] horizontal may be considered under special conditions.

7-04.2 (3) REHABILITATION, RESURFACING AND PAINTING OF STRUCTURES OVER RAILROADS. All projects over, on, or under railroad property require notification of the railroad no matter how minor the work. The contractor is almost always required to have railroad protective liability insurance before performing any work involving railroad property even where no trains are currently operated. Rehabilitation of structures such as full-depth repair or removal of railings and curbs will require the contractor to engage railroad personnel ("flaggers") to protect the railroad's property and operation. Multimodal Operations Division is to be notified of these projects as soon as possible after programming.

7-04.2 (4) RESURFACING PROJECTS. When grade crossings are within the limits of a resurfacing project, Multimodal Operations can request the railroad to make any necessary repairs or replacement of the track crossings, warning devices, and adjustment of high or low tracks to provide for a better grade crossing.

The district should review all railroad crossings within the project limits and determine if a track adjustment would be justifiable. If an adjustment appears beneficial, a profile of top of rail (both if on a curve) for 500 ft. [150 m] in each direction should be obtained and submitted to Multimodal Operations Division together with a recommended adjustment height.

A review of the number and condition of railroad crossing signs ("crossbucks") and whether reflectorized, the condition of the track crossing material and the location and condition of any flashing light signals in relation to the new centerline of roadway should also be made. Form D-20, Highway-Railroad Crossing Data, (Figure 7-04.1) is used to record the field condition data previously mentioned. One copy of Form D-20 should be sent to Multimodal Operations as soon as possible after programming.

7-04.3 CROSSING SURFACES. Railroads are responsible for the installation and maintenance of all public railroad-highway grade crossing surfaces. The district can request high type surface improvements if funding is available. These high type surfaces are products composed of rubber or concrete.

Agreements for installation of high type crossing surfaces are prepared by Multimodal Operations Division and submitted to the railroad for execution. Multimodal Operations will transmit the agreement to the district for execution by the local agency, if applicable, after execution by the railroad. Multimodal Operations will notify railroad to proceed, and district construction personnel will inspect the work. The district operations engineer responsible for Construction will notify Multimodal Operations when the installation is completed.

7-04.4 RAILROAD GRADE CROSSING WARNING SYSTEMS. The determination of appropriate warning devices at railroad grade crossings is the responsibility of Multimodal Operations with concurrence of the railroad(s) involved. The district initiates a review of all railroad grade crossings within the limits of a project by submitting Form D-20 (Figure 7-04.1) as soon as possible after programming.

Multimodal Operations will initiate individual grade crossing improvements not associated with a project by using a priority rating system developed from the data available on the crossing inventory. The district, together with the railroad, local officials and Multimodal Operations personnel annually inspect a number of these crossings in the field to determine the appropriate improvement. A Diagnostic Review Sheet form is completed for the crossing site. This form and can be obtained by request from Multimodal Operations.

Multimodal Operations prepares all agreements for improvements at railroad crossings after the proposed work has been approved by the FHWA. Figure 7-04.2 is a flow chart illustrating the handling of documents for improvements on non-state routes. Crossing improvements on state routes are processed by Multimodal Operations without involving local agencies.

7-04.5 PROPERTY RIGHTS FROM RAILROADS

7-04.5 (1) GENERAL. Negotiation for use of railroad right of way is a difficult and time-consuming process. Multimodal Operations is responsible for all negotiations with railroads unless only non-operating or abandoned right of way is involved, in which case the district right of way office will negotiate with the railroad involved. The district office initiates the process by acquiring a track map from each railroad involved.

Property rights granted by the railroads may be defined and described using one or more document type. Temporary and permanent easements are used where construction and maintenance of highway facilities encroaches on operating right of way and may be included in one document. Quit claim deeds are generally utilized where permanent rights are sought on non-operating right of way. Coordination with Multimodal Operations is important when determining the document form because railroads have different forms that can expedite the process.

Following determination of the document form, the district will prepare the documents. Right of Way personnel will appraise each parcel in accordance with the Right of Way Manual. After the appraisal is complete, the district will advise Multimodal Operations of the appraised value. Multimodal Operations will make a recommendation of the monetary consideration to be shown on the documents. Generally the actual appraised value will be offered even if this value is less than the processing fee required by the involved railroad.

When highway right of way is parallel and abutting with a railroad and limited access rights are being obtained, four sets of right of way plans are sent as soon as available to Multimodal Operations. These plans will be handled with the railroad to determine if access points need to be reserved for the railroad's use and for the possible closing of both public and private grade crossings. Quit claim deeds are used to acquire access rights when other easement rights are not involved.

The description for railroad easements is referenced to a land tie shown on railroad's track map. These latter references can be very brief in that it is only necessary to reference the land tie and then along the section or quarter section line the distance shown on the track map to the centerline of the railroad right of way, continuing with the metes and bounds description of the easement limits desired from the railroad. The key in this procedure is the equation stationing tying the railroad's centerline to the highway centerline.

One copy of the railroad's track map, four copies of the roadway plan sheet with the parcels highlighted, and three copies of the document form are submitted to Multimodal Operations Division for handling with the railroad.

7-04.5 (2) RAILROAD OPERATING RIGHT OF WAY. Railroads usually consider 100 ft. [30 m] of right of way centered about their main track centerline as the minimum on which they can operate effectively. Even when only ditch cleanout or erosion control is involved, encroachment within this limit is not desired by the railroad and should be avoided. When absolutely necessary to encroach on railroad property, the number of plans and other data set out in [Subsection 7-04.2](#), including a cross section showing the work on railroad right of way throughout the encroachment, are submitted to Multimodal Operations.

7-04.5 (3) RAILROAD NON-OPERATING RIGHT OF WAY. Property outside the typical 100 ft. [30 m] corridor is usually considered as non-operating right of way. Abandoned depots, warehouses, and watering ponds are other examples of non-operating right of way. As with all railroad easements, railroads typically grant only quitclaim deeds for non-operating right of way.

7-04.6 FINAL PLANS. Black and white full size prints of the title sheet, plan and profile sheet(s), bridge title sheet (if applicable), and any special sheet(s) showing details of the crossing or of the roadway in the vicinity of the structure(s) are submitted for reproduction.

If a crossing on a non-state route is to be closed as part of the project, the local road authority must provide a resolution, ordinance, or official letter supporting the closure. The district is to secure this approval.

When the project includes a new grade crossing, a questionnaire for a new grade crossing is submitted with the roadway plan sheets. See [Figures 7-04.3 and 7-04.4](#). Likewise, [Figures 7-04.5 and 7-04.6](#) are submitted if the project includes a new, widened or replacement grade separation structure.

This information is submitted to Multimodal Operations at least six months prior to the scheduled date of letting.

7-04.7 FINAL QUANTITIES. Plans submitted to the Central Office that include any proposed work on railroad operating right of way are to contain a breakdown of bid item quantities which are within the railroad right of way limits using Forms DE 301 and DE 302. This information is used by the contractor to obtain railroad protective liability insurance.