Design Bureau Traffic & Safety Operations

Rail-Highway Safety Programs Group 1409 Coliseum Boulevard, Montgomery, Alabama 36110

Guidelines for Construction Projects with Railroad Involvement

The information provided is modeled in the **Guidelines for Developing Construction Plans (GDCP)** for construction related projects and shall be used to assist in the development of plans and processing submittals for projects with railroad involvement. Information related to Section 130 Safety projects shall be obtained and coordinated directly through the Rail-Highway Safety Programs Group, Section 130 Program Coordinator. Where required, the name of the railroad, crossing number, railroad milepost, etc. can be found by contacting the Rail Programs Group or visiting FRA Grade Crossing Inventory and Accident Reports website.

Stages of Submittals for Construction/Resurfacing Projects with Railroad Involvement

Project Scope Development Initial Railroad Coordination Post 30% Railroad Involvement Post Plan-In-Hand Project Coordination Railroad Agreement Submittal

Railroad and Right-of-Way (ROW) Bureau Coordination Post PS&E Inspection Final Back Check Construction Review Office Engineer Submittal

GDCP #	DESCRIPTION				
	PROJECT SCOPE DEVELOPMENT				
11.04	Projects with railroad involvement shall be coordinated through the Rail Group. If there is railroad involvement all projects involving at-grade crossings will require a Warning Device Checklist to be submitted to the Rail Group. The Rail Group will determine if a Diagnostic Review is needed. If determined a diagnostic review is needed, the Rail Group will schedule and coordinate a review with the Project Lead, Region Rail Coordinator, Railroad Company, and if applicable local road authority. The Diagnostic Review will determine if any potential upgrades are required for the facilities for which the railroad has maintenance and operational responsibilities in accordance to the latest standards and MUTCD. Refer to Attachment # 9.				
INITIAL RAILROAD COORDINATION					
16.01	A <u>Certification of Railroad Involvement</u> (Form RR1) is required on all construction projects prior to FHWA authorization, refer to Attachment # 9. This includes projects that have no railroad conflict. The project lead shall coordinate with the Region and/or local road authority to obtain all proper information and signatures for the Railroad Certificate. This form is to be provide to Office Engineer. Refer to GDCP 11.04 determine railroad involvement.				
16.02	 Track Expansion Request: If a structure is to be constructed/replaced on, over, under, or adjacent to the railroad right-of-way, the project lead shall coordinate with the Rail Group to determine the number of tracks to be spanned. The Rail Group will notify the project lead the number of tracks to be spanned and other railroad requirements. a. The preliminary plans of structure(s) to be constructed/replaced on, over, under, or adjacent to the railroad right-of-way shall be submitted by the project lead to the Rail Group. Refer to GDCP 39.03 for required plan sheets. 				

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	b. Upon receipt of submittal, the Rail Group will review and submit layout to the Railroad
	requesting acceptance of the design. If the railroad requires a design change to lengthen
	bridge spans due to the anticipation of future tracks, addition of crash walls, fencing, and
	other railroad requests for non-standard items or require the structure to span the entire
	railroad ROW, requests by the railroad must be submitted to the Rail Group.
	a. The railroad must provide:
	i. A copy of its business plan which clearly addresses the expansion of
	tracks at this location.
	ii. A timeline for implementation for the expansion.
	iii. A layout plotting the location and identification of these future tracks/lines,
	in relationship to existing rail line, superimposed on ALDOT proposed
	bridge layout.
	The Rail Group will process railroad request to the project lead for review, acceptance, and
	approval by the Chief Engineer.
	POST 30% RAILROAD INVOLVEMENT
39.01	Projects Involving Railroad(s): The project lead shall refer to attachment #9 and include
	applicable railroad notes on the Project Notes Sheet.
39.02	Railroad Involvement: Surveying and Drilling within Railroad ROW:
	A request for a Right of Entry agreement must be sent to the Rail Group for coordination with the
	railroad when drilling and/or survey work is required within railroad right-of-way. A plan sheet or
	map indicating the location of the drilling and/or survey work and a written summary indicating the
	name of the railroad, the crossing number, the railroad milepost, and a complete description of the
	work to be performed within the railroad's right-of-way must be transmitted. Include to the best of
	your ability an estimate for the number of workdays required for completing this work.
39.03	Railroad Coordination: The project lead is responsible for transmitting the following information,
	along with electronic files to the Rail Group for their use in securing the railroad's approval of the
	plans, refer to attachment #9:
	a. Non-Bridge Projects - Resurfacing, Resurfacing and Widening, Additional Lanes
	Widening, New Alignment, Under Boring (Pipe Installation) within the railroad right-of-way,
	overhead wiring projects within the railroad's right-of-way, Pedestrian/Bicycle
	Improvements, Railroad overpass work, etc.
	b. Bridge Projects – Bridge Removal and/or Replacement, Bridge Painting, Bridge Barrier
	Rail Retrofit, Bridge Widening, etc.
	1 Written Summery (All Droigete) the name of the relired the processing number the relired
	1. Written Summary (All Projects)- the name of the railroad, the crossing number, the railroad
	milepost, a complete description of all work to be performed within the railroad's right-of-way,
	and the number of workdays within the railroad's right-of-way. Estimate the number of working
	days this work will take to the best of your ability, consult others when necessary. Include the
	estimated number of working days in the description of work. The summary and the plan sheets should match and not contradict each other.
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	2. Required plan sheets (one electronic pdf file containing all required sheets) (All Projects):
	a. 11" x 17" set of plans or standard letter size plans are required. All plan sheets showing
	work on, over, under, or adjacent to the railroad right-of-way including any other information
	related to the railroad involvement are required
	b. Title Sheet - be sure to include the name of the railroad in the project description
	c. Typical Section - show a typical section for the railway (tie-ins, details, etc.), the name of
	the railroad, railroad milepost, railroad right-of-way limits, paving limits, and crossing
	number
	d. Railroad Plan View Sheet -include the name of railroad, railroad right-of- way limits, paving
	limits, crossing number, railroad mile post, a clear statement of the work to be performed
	within the railroad right-of-way limits, existing and required rail passive and active warning
	devices, the required markings, legends (if Standard Drawings are referenced in the plans,
	legends are not required to be shown)
	3. Bridge Plan/Layout Sheets (Bridge Projects Only)- show plans for bridge work, including
	bridge barrier rail projects, bridge approaches, and drainage structures on, over, under, or
	adjacent to the railroad right-of-way. Include the name of railroad, railroad right-of-way limits,
	crossing number, railroad mile post, locations and type of proposed foundations (if known),
	and horizontal and vertical clearances from the centerline of the tracks to the bridge.
	Preliminary Bridge Layout should be transmitted to the Rail Group for use in requesting
	the railroads approval of the proposed bridge layout, refer to GDCP 16.02 for Track
	Expansion Requests.
	a. Horizontal Clearance:
	i. Horizontal clearance form centerline of tracks to the face of pier or abutment,
	measured perpendicular to the tracks.
	ii. Provisions for future tracks, access roads, other railroad facilities, etc.
	iii. The distance the toe of footing shall be from the centerline of track, measured
	perpendicular to the tracks.
	iv. Requirements for Crash Walls and design criteria.
	b. Vertical Clearance:
	i. Vertical, measured from top of high rail to lowest point of structure in the horizontal
	clearance area which extends 6' - 0" either side of the centerline of track.
	POST PLAN-IN-HAND (PIH) PROJECT COORDINATION
67.06	The project lead shall coordinate with the Rail Group to determine if any additional coordination or
07.00	information is needed prior to railroad agreement submittal.
	RAILROAD AGREEMENT SUBMITTAL PACKAGE
75.0	The project lead shall electronically submit a pdf file containing a written summary and a copy of a
	partial plan set which will include the plan sheets affecting the railroad as described below to the
	Rail Group. The Rail Group will coordinate with the railroad as needed for the acceptance of the
	design and items shown on the plan sheets related to railroad involvement; including the submittal
	for the railroad construction agreement review, approval, and execution. Cross-sections and

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hydraulic calculations will be required for new construction of a roadway and/or bridge when drainage is conveyed on, over, or adjacent to the railroad right-of-way.
**Railroad submittal should be made at least 22 weeks prior to the project letting date . This will ensure partially or fully executed agreement is secured prior to the construction submittal.
 Written summary- (All Projects) - the name of the railroad, the crossing number, the railroad milepost, a complete description of all work to be performed within the railroad's right-of-way, and the number of workdays within the railroad's right-of-way. Estimate the number of working days this work will take to the best of your ability, consult others when necessary. Include the estimated number of working days in the description of work. The summary and the plan sheets should match and not contradict each other. Required plan sheets - (one electronic pdf file containing all required sheets):
a. 11" x 17" set of plans or standard letter size plans are required. All plan sheets showing work on, over, under, or adjacent to the railroad right-of-way including any other information related to the railroad involvement are required
 b. Title Sheet - include the name of the railroad in the project description c. Typical Sheet(s) - show typical section of railroad (tie-ins, details, etc.), show the name of the railroad, crossing number, railroad milepost, paving limits, and railroad right-of-way limits
 d. Project Note Sheet(s) - include any applicable railroad project notes on the Project Note Sheet, refer to Attachment # 9
 All plan sheets showing work on, over, under or adjacent to the railroad right-of-way shall include but is not limited to:
a. Any Plan & Profile sheet(s) or Rail Plan Layout sheet(s) - show the name of the railroad, crossing number, railroad milepost, railroad right-of-way limits, paving limits, a clear statement of work being performed within the railroad right-of-way limits, existing and required rail passive and active warning devices, required markings, legends, (if Standard drawings are referenced in the plans, legends are not required to be shown)
b. Any applicable special project details (related to or impacting railroad)
 c. Utility sheet(s) (related to or impacting railroad) d. Drainage sheet(s) and calculations (related to or impacting railroad)
e. Erosion and Sediment Control sheet(s) (related to or impacting railroad)
 f. Traffic Control and Construction Staging sheet(s) (related to or impacting railroad) g. Traffic Detour sheet(s) (related to or impacting railroad)
 g. Traffic Detour sheet(s) (related to or impacting railroad) h. Bridge Title sheet- include the name of the railroad in the title box
i. Bridge General Plan and Elevation sheet(s) – include the name of the railroad on
the plan and elevation sheet, centerline of the railroad tracks, railroad right-of-way limits, crossing number, railroad milepost, locations and type of foundations and all
horizontal and vertical clearances required by the railroad for review. If applicable,

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	show the existing railroad location/layout and, the required roadway/bridge location/layout as it relates to the railroad's right-of-way i. Available Bridge Structure and Details ii. Geotechnical sheet(s) for bridge area j. Cross-section sheet(s) - at least 300 feet on each side of the railroad right-of-way k. Earthwork Details sheet(s) (related to or impacting railroad)
	RAILROAD AND RIGHT-OF-WAY BUREAU COORDINATION (BRIDGE PROJECTS AND COMPLICATED PARALLEL ROADWAY PROJECTS)
75.01	For railroad involved projects requiring Right-of-Way Coordination:
	 Temporary Construction easement language is included in most railroad agreements. If permanent easement is required, the project lead should coordinate with the ROW Bureau for guidance and direction of acquiring easement. Norfolk Southern and CSX Railroads have certain procedures that should be followed when requesting permanent easement. Refer to Attachment #9.
	POST PS&E INSPECTION
86.05	The project lead shall coordinate any revisions made to the plans or scope of work, including any revisions made to the bridge sheets, as it relates to the railroad to the Rail Group for coordination and acceptance by the railroad.
	POST FINAL BACK CHECK (FBC) COORDINATION
91.02	For those projects requiring railroad coordination, the designer shall request a copy of the Railroad Agreement(s) from the Rail Group. This agreement must be obtained before plans can be submitted for Construction Bureau review.
91.03	The Rail Group shall transmit an electronic copy of the fully executed Railroad Agreement to the project lead, Construction Bureau and Right-of-Way Bureau; and to Office Engineer two (2) original Railroad Agreements and five (5) copies for those projects requiring railroad coordination.
	CONSTRUCTION REVIEW SUBMITTAL
95.0	Railroad Agreement should be included with Construction Submittal.
	FINAL PLANS TO OFFICE ENGINEER
99.0	The project lead must complete and submit a copy of the Certification of Railroad Involvement with submittal.
99.03	NOTE: for railroad involved projects – The project lead shall provide any plan revisions affecting the railroad to the Rail Group for coordination with the railroad. Any delay in providing revisions and obtaining the railroad's approval after the project is let to contract can adversely affect the project completion including the contractor gaining access to begin work within or near the railroad's right-of-way.

ATTACHMENT # 9

Included Documents:

- 1. 2016 MEMO: CPMS Modification, Railroad Indicator
- 2. 2015 MEMO: Railroad Crossing Guidance (no attachments)
- 3. 2016 MEMO: Railroad Crossing Guidance, Revision One (w/ revised attachments)
- 4. USC Title 23 CFR 646.214
- 5. Certification of Railroad Involvement, RR Form 1
- 6. Railroad Crossing Warning Device Checklist
- 7. Railroad Project Notes
- 8. Sample Written Summary

Mr. D.E. (Ed) Phillips, Jr., P. E. Mr. Edward N. Austin, P. E. Region Engineers November 3, 2015 Page 2

- 1. Are the current warning devices adequate for the rail-highway crossing? and,
- 2. Do the devices meet the current requirements in the Manual on Uniform Traffic Control Devices (MUTCD)?

Attached for your use in determining the adequacy of the existing devices is *Title 23 CFR 646.214(b)* and *Railroad Crossing Warning Device Checklist.* This review and determination should be included in the **project scope review**. All work to be undertaken as part of the project to comply with Title 23 CFR 646.214(b) will be included in the project cost unless the work is being done on a separate project or by the railroad at no cost to the project. If assistance is needed to determine whether active

NOTE 6/26/19: For documentation purpose, forms RR Form 1 and RR Form 1A have been combined and revised as of June 25, 2019. The Railroad Crossing Warning Device Checklist has been revised as of April 24, 2019. Revised documents proceed 2016 MEMO Railroad Crossing Guidance, Revision One.



1409 Coliseum Boulevard Montgomery, Alabama 36110



Telephone: 334/242-6311 • Fax No.: 334/262-8041

Robert Bentley Governor John R. Cooper Transportation Director

July 13, 2016

MEMORANDUM

TO: Ed Phillips County Transportation Engineer

> Steve Walker Bureau Chief, Innovative Programs

> > Cull

Region Engineers

FROM: Don Arkle Chief Engineer

RE: Railroad Crossing Guidance, Revision One

The purpose of this memorandum is to supplement the previous memorandum dated November 4, 2015, and to provide additional guidance when developing federal-aid construction projects. The supplemental guidance is issued due to a request by several railroads operating in Alabama to conduct construction diagnostic reviews in lieu of completing the railroad survey form. The supplemental guidance is as follows:

In accordance with Title 23 CFR 635.309(b), all federal-aid projects require a statement of railroad coordination verifying all relevant work has been completed or that necessary arrangements have been made to complete the work. The first step in this process is to determine if railroad work is involved in the project. Consideration should be given to railhighway crossings that are "located within or near the terminus of a federal-aid project," as stated in Title 23 CFR 646.214(b)(2). For the purpose of this guidance, "located within or near" is defined as a rail-highway crossing within or immediately adjacent to the project limits and within the projected limits of the public right of way. When setting the project limits, the railroad right-of-way boundary should not be considered a logical termini to avoid work related to a rail-highway crossing. The attached forms, RR FORM 1 and RR FORM 1A, are provided to comply with this requirement. One of the attached forms must be completed and submitted for all federal-aid construction projects even if there is no railroad involvement on the project. This form should be submitted to the ALDOT State Office Engineer with the final plan assembly submittal. If there are no rail-highway crossings located within or near the project terminus, the process is limited to the completion and submission of RR Form 1 or RR Form 1A.

Where the roadway and railroad are parallel, if there is work in the railroad right of way (such as resurfacing on the side road or drainage improvements), then there will be railroad involvement. If there is no work within the railroad right of way, there is no railroad involvement. When there is/are rail-highway crossing(s) located within or near the terminus of a federal-aid project causing railroad involvement, additional information is required. The adequacy and condition of existing traffic control devices must be determined as follows:

- 1. Are the current warning devices owned and maintained by the rail owner adequate for the rail-highway crossing?
- 2. Do the signing and markings meet the current requirements in the Manual on Uniform Traffic Control Devices (MUTCD)? Please note there are MUTCD requirements for the devices such as the horizontal offset from the travelway. If the project improvements or a previous project by the road owner do not create a situation with less than MUTCD minimums, and if no operational problems are known, the project will not address the deficiency. The deficiency will be noted and Modal Programs Bureau personnel will be informed for communication to the rail owner.

The next step in the process is to send the GDCP Step 3.1 transmittal to the Modal Programs Bureau for determination of how to coordinate with the particular railroad on the project. If the railroad does not require a diagnostic team review, the Engineer of Record will complete the scope checklist for adequacy of the warning devices. If the warning devices are adequate the railroad will be sent the survey form for their signature. If the warning devices are not adequate a diagnostic team review will be coordinated through the Modal Programs Bureau. For those railroads requiring a diagnostic team review for all crossings, that review will be coordinated through the Modal Programs Bureau also.

Title 23 CFR 646.214(b) and the ALDOT Rail-Highway Construction Diagnostic Review Form are attached and should be utilized when performing the construction diagnostic review. These documents will aid the diagnostic team review in determining the adequacy and condition of the existing traffic control devices. All work to be undertaken as part of the project to comply with Title 23 CFR 646.214(b) shall be included in the project cost unless the work is being completed on a separate project by the railroad or by others at no cost to the project. If assistance is needed to determine whether active or passive warning devices are warranted, the Region Railroad Coordinator should be consulted.

When scheduling the construction diagnostic review, the design lead should notify Modal Programs Bureau personnel of the need to schedule the railroad representative as early as possible, preferably a minimum of two years prior to the project letting date. Early coordination is key to developing a successful federal-aid project with railroad involvement.

Upon completion of the project scope review, the design lead will submit a scope of work to Modal Programs Bureau personnel for any work to be undertaken by the railroad. Modal Programs Bureau personnel will incorporate the scope of work into the railroad agreement.

We anticipate that the vast majority of at-grade railroad crossings will warrant passive warning devices only.

Please distribute this memorandum and attachments to all personnel having responsibilities for federal-aid project development and acceptance at both the state and local levels as it is imperative that ALDOT comply with this guidance.

Your cooperation in this effort is greatly appreciated.

DTA:sfw Attachments - 4 copy: John Cooper Ed Austin Clay McBrien Region Railroad Coordinators FHWA File

NOTE 6/26/19: For documentation purpose, forms RR Form 1 and RR Form 1A have been combined and revised as of June 25, 2019. The Railroad Crossing Warning Device Checklist has been revised as of April 24, 2019. Revised documents proceed 2016 MEMO Railroad Crossing Guidance, Revision One.

§646.214

S. GOVERNMENT INFORMATION

> vertical clearances used by the railroad in its normal practice subject to limitations as shown in the appendix or as required by a State regulatory agency.

(b) The Federal share of railroad/ highway crossing projects may be:(1) Regular pro rata sharing as pro-

vided by 23 U.S.C. 120(a) and 120(b).

(2) One hundred percent Federal share, as provided by 23 U.S.C. 120(c).

(3) Ninety percent Federal share for funds made available through 23 U.S.C. 133(d)(1).

[40 FR 16059, Apr. 9, 1975, as amended at 47
 FR 33955, Aug. 5, 1982; 53 FR 32218, Aug. 24, 1988; 62 FR 45328, Aug. 27, 1997]

§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]

§646.216 General procedures.

(a) *General.* Unless specifically modified herein, applicable Federal-aid procedures govern projects undertaken pursuant to this subpart.

(b) Preliminary engineering and engineering services. (1) As mutually agreed to by the State highway agency and railroad, and subject to the provisions of §646.216(b)(2), preliminary engineering work on railroad-highway projects may be accomplished by one of the following methods:

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ALABAMA DEPARTMENT OF TRANSPORTATION CERTIFICATION OF RAILROAD INVOLVEMENT

CPMS NUMBER	DATE SUBMITTED
PROJECT NUMBER	CROSSING INVENTORY NUMBER (i.e. 123456A)
STREET/ROAD NAME (INCLUDE COUNTY/STATE/U.S. ROUTE)	
COUNTY	
PROJECT DESCRIPTION/SCOPE OF WORK AT CROSSING:	

SELECT THE APPLICABLE STATEMENT:

In accordance with the provisions of 23 CFR Part 635.309(b), this is to certify that:

The above referenced project has <u>NO</u> railroad involvement or railroad coordination required that would need to be undertaken and completed with the physical construction.

All railroad arrangements and/or coordination have been made for the above referenced project to be undertaken and completed within the project as part of the project cost.

All railroad arrangements and/or coordination have been made for the above referenced project to be undertaken and completed prior to project completion at no cost to the project.

BY:_____

Authorized Signature

Print Name of Authorized Signature and Title

NOTE: Forms RR Form 1 and RR Form 1A are now combined for signature by the Local Authorized Agency, Region Engineer, or project lead engineer.

Design Bureau Traffic & Safety Operations

Rail-Highway Safety Programs Group 1409 Coliseum Boulevard, Montgomery, Alabama 36110

Railroad Crossing Warning Device Checklist for Construction Projects with Railroad Involvement

The following checklist is a guide to determine the condition and compliance of existing rail-highway traffic control devices or crossings when a crossing is located within or near the terminus of a project. This checklist is developed in accordance to the regulations listed in Title 23 CFR 646.214 (b)(3)(i), MUTCD, other Federal and State guidelines. The included MUTCD references are provided in this checklist for quick reference, reference Part 8 of the current MUTCD guide for additional information, detail, and options.

*PROJECT NUMBER		*DATE SUBMITTER	
*STREET/ROAD NAME (INCLUD	E COUNTY/STATE/U.S. ROUTE)	Click or tap to e *CROSSING INVEN	ITORY NUMBER (i.e. 123456A)
*COUNTY	CITY/TOWN (IN OR NEAR)	LETTING DATE Click or tagyo	Rall Inter a date.
	POSTED HIGHWAY SPEED (MP		GE DAILY TRAFFIC (AADT) & YEAR
*SCOPE OF WORK AT CROSSING	6:	4 DY VIS.	
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*CROSSING TYPE Choose an item.	Choose an item.	*CROSING POSITION Choose an item.	TYPE OF LAND USED Choose an item.
*NUMBER OF TRAFFIC THES CROSSING RAILFOAD Choose Phittem.	*HIGHWAY SYSTEM Choose an item.	Choo	ATION OF ROAD AT CROSSING se an item. se an item.
*EMERGENCY SERVICE ROUTE	*SCHOOL BUS ROUTE Choose an item.	*TRANSIT BUS ROUTE Choose an item.	*ESTIMATED PERCENT TRUCKS%
SMALLEST CROSSING ANGLE Choose an item.	4. Intersecting Roadway with	reet? Choose an item. <i>ights within approx. 50 feet fron</i> nin 500 feet? Approx. distance (
	5. Is there an adjacent crossi	ng with a separate number? DO	T No(s)

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Preliminary Document Not for Release pursuant to 23 U.S.C. §§130 and 148 and other federal safety programs and is exempt from discovery or admission under 23 U.S.C. §§ 402 and 409.

Mast Mounted Flashing Lights_

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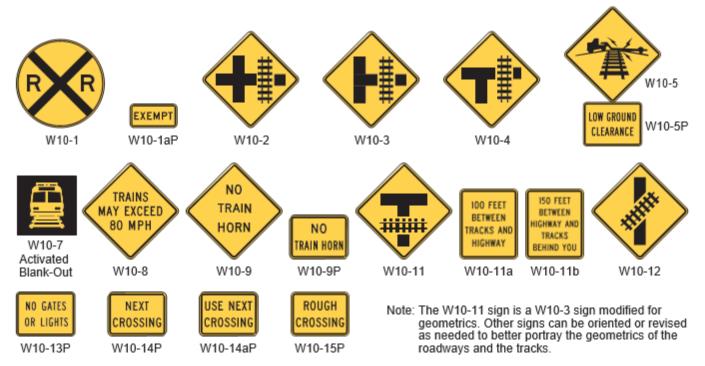
Railroad Crossin	g Warning Device Checklist for
Construction Pro	jects with Railroad Involvement

	Construction Projects with Railroad Invo	lvement
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Choose an item.	Non-Train Active Warning	Choose an item.
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Choose an item.	Highway Traffic Signal Interconnection	Choose an item.
	Choose an item.	
Choose an item.	Audio Devices	Choose an item.
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	Highway Traffic Signal Preemption	Choose an item.
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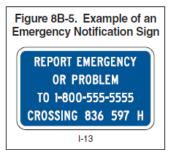
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Railroad Crossing Warning Device Checklist for Construction Projects with Railroad Involvement WARNING SIGNS AND PLAQUES FOR GRADE CROSSINGS



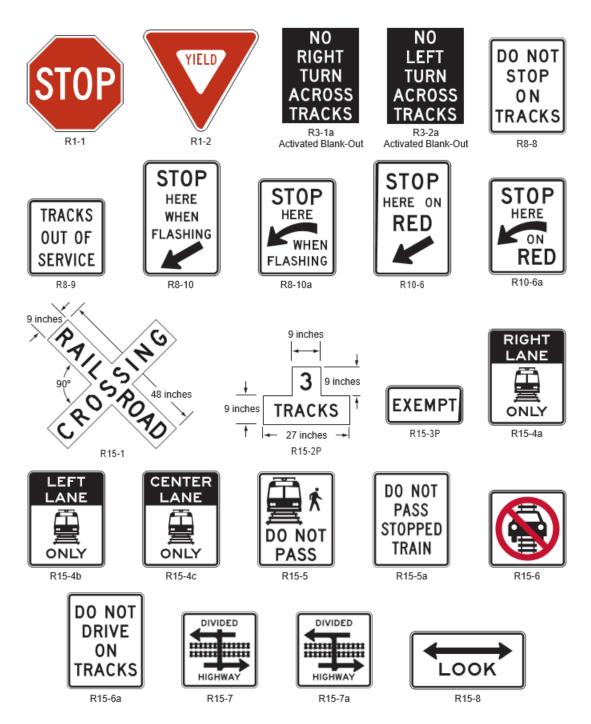
Source: Figure 8B-4. Warning Signs and Plaques for Grade Crossings, MUTCD 2009 edition. *Reference the current edition of the MUTCD, Part 8 for additional information, detail, and options.*

OTHER SIGNS, PLAQUES, AND DEVICES FOR GRADE CROSSINGS

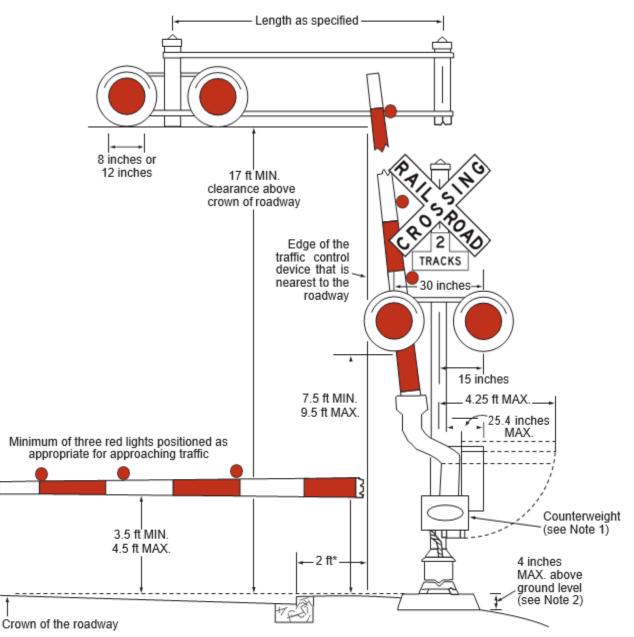


Emergency Notification signs should be installed at all highway-rail grade crossings. A minimum of USDOT grade crossing inventory number and the emergency contact telephone number should be included.

REGULATORY SIGNS AND PLAQUES FOR GRADE CROSSINGS



Source: Figure 8B-1. Regulatory Signs and Plaques for Grade Crossings, MUTCD 2009 edition. *Reference the current edition of the MUTCD, Part 8 for additional information, detail, and options.*

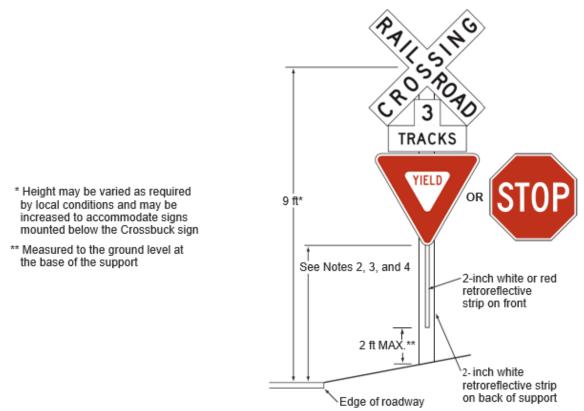


*For locating this reference line on an approach that does not have a curb, see Section 8C.01.

Notes:

- Where gates are located in the median, additional median width may be required to provide the minimum clearance for the counterweight supports.
- The top of the signal foundation should be no more than 4 inches above the surface of the ground and should be at the same elevation as the crown of the roadway. Where site conditions would not allow this to be achieved, the shoulder side slope should be re-<u>graded</u> or the height of the signal post should be adjusted to meet the 17-foot vertical clearance requirement.

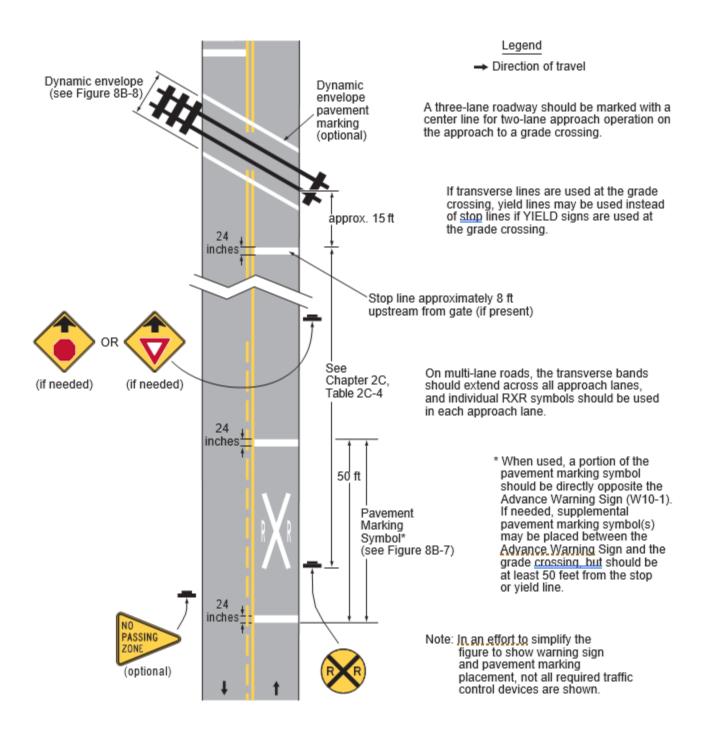
Source: Figure 8C-1. Composite Drawing of Active Traffic Control Devices, MUTCD 2009 edition. *Reference the current edition of the MUTCD, Part 8 for additional information, detail, and options.*



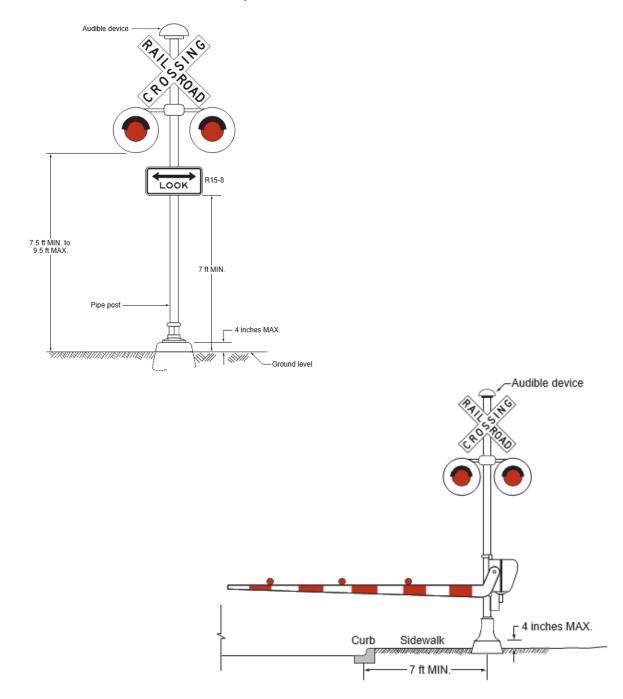
Notes:

- YIELD or STOP signs are used only at passive crossings. A STOP sign is used only if an engineering study determines that it is appropriate for that <u>particular approach</u>.
- 2. Mounting height shall be at least 4 feet for installations of YIELD or STOP signs on existing Crossbuck sign supports.
- 3. Mounting height shall be at least 7 feet for new installations in areas with pedestrian movements or parking.

Source: Figure 8B-2. Crossbuck Assembly with Yield or Stop Sign on Crossbuck Sign Support, MUTCD 2009 edition. *Reference the current edition of the MUTCD, Part 8 for additional information, detail, and options.*



Source: Figure 8B-6. Example of Placement of Warning Signs and Pavement Markings at Grade Crossings, MUTCD 2009 edition. *Reference the current edition of the MUTCD, Part 8 for additional information, detail, and options.*



Source: Figure 8C-4 and 8C-5. Example of Flashing-Light Signal Assembly for Ped. Crossings and Shared Ped. Roadway Gate, MUTCD 2009 edition. *Reference the current edition of the MUTCD, Part 8 for additional information, detail, and options.*

Design Bureau Traffic & Safety Operations

Rail-Highway Safety Programs Group 1409 Coliseum Boulevard, Montgomery, Alabama 36110

RAILROAD PROJECT NOTES

- **NOTE:** Notes are applicable in 900 series Project Notes. Where applicable, the general project notes are for all project plans. Any note listed under the individual railroad company below are subsidiary to the standard general notes and should be applied as needed.
- **LEGEND**: \int Applicable for bridge replacement projects.
 - □ Applicable for any resurfacing and minor widening projects or for new and/or reconstructed roadway projects.
 - \varnothing Applicable, as needed, for projects where work is being performed by the Railroad

GENERAL PROJECT NOTES

- $\mathcal{I} \square \mathcal{O}$ The contractor shall review the railroad project specal provision for additional information, procedures, and compliance.
 - Image: Contractor for the state shall notify the railroad company in writing a minimum of 10* days before work is to be started on or near the railroad's right-of- way.

 The contact information is as follows:

[RAILROAD CONTACT NAME] [RAILROAD CONTACT NUMBER] [RAILROAD CONTACT EMAIL ADDRESS]

Or

THE CONTRACTOR FOR THE STATE SHALL NOTIFY THE RAILROAD COMPANY IN WRITING A MINIMUM OF 10* DAYS BEFORE WORK IS TO BE STARTED ON OR NEAR THE RAILROAD'S RIGHT-OF- WAY. REFERENCE THE RAILROAD PROJECT SPECIAL PROVISION FOR CONTACT INFORMATION.

[*For BNSF and CSX Railroad projects change 10 days to 30 days.]

- $\int \Box$ The contractor shall contact the railroad for information on railroad safety training and all persons working on or over the railroad's right-of-way must comply with railroad safety rules.
 - THE RAILROAD SHALL FURNISH AND INSTALL ALL MATERIALS FOR 2-30' CANTILEVER SIGNALS, 2-35' GATES, BELLS, THE 81' OF CROSSING SURFACE AND MOTION DETECTORS AND INVOICE THE STATE FOR THE ACTUAL COST THEREOF.
 - Ø THE RAILROAD COMPANY SHALL NOTIFY THE STATE IN WRITING A MINIMUM OF 10 DAYS BEFORE WORK IS TO BE STARTED ON THIS PROJECT.
 - Ø THE RAILROAD SHALL FURNISH AND INSTALL ALL MATERALS FOR RAILROAD SIGNALS AND CROSSING SURFACES AND INVOICE THE STATE FOR THE ACTUAL COST THEREOF.
 - ALL NECESSARY TRAFFIC CONTROL DEVICES (SIGNS, CONES, FLAGGERS, ETC.) WHICH ARE REQUIRED WHEN WORK IS BEING PERFORMED BY THE RAILROAD SHALL BE FURNISHED BY THE CONTRACTOR AND PAID FOR UNDER THE APPROPRIATE ITEMS OF WORK.

Design Bureau Traffic & Safety Operations

Rail-Highway Safety Programs Group 1409 Coliseum Boulevard, Montgomery, Alabama 36110

RAILROAD PROJECT NOTES

NORFOLK SOUTHERN RAILROAD PROJECT NOTES

- ✓ □ THE FINAL PLANS SHOULD INCLUDE A NOTE STATING THAT ALL WORK ON, OVER, UNDER, OR ADJACENT TO NORFOLK SOUTHERN (NS) RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE NORFOLK SOUTHERN "SPECIAL PROVISIONS FOR THE PROTECTION OF RAILWAY INTERESTS" (NS SPECIAL PROVISIONS)
- ✓ □ THE FINAL PLANS SHOULD INCLUDE A NOTE STATING THAT "ONE CALL" SERVICES DO NOT LOCATE BURIED RAILROAD SIGNAL AND COMMUNICATIONS LINES. THE CONTRACTOR SHALL CONTACT THE RAILROAD'S REPRESENTATIVE TWO (2) DAYS IN ADVANCE OF THOSE PLACES WHERE EXCAVATION, PILE DRIVING, OR HEAVY LOADS MAY DAMAGE RAILROAD UNDERGROUND LINES ON RAILROAD PROPERTY. UPON REQUEST FROM THE CONTRACTOR OR AGENCY, RAILROAD SIGNAL FORCES WILL LOCATE AND PAINT MARK OR FLAG RAILROAD UNDERGROUND SIGNAL, COMMUNICATION, AND POWER LINES IN THE AREA TO BE DISTURBED FOR THE CONTRACTOR. THE CONTRACTOR SHALL AVOID EXCAVATION OR OTHER DISTURBANCE OF THESE LINES WHICH ARE CRITICAL TO THE SAFETY OF THE RAILROAD AND THE PUBLIC. IF DISTURBANCE OR EXCAVATION IS REQUIRED NEAR A BURIED RAILROAD SIGNAL, COMMUNICATION, OR POWER LINE, THE LINE SHALL BE POTHOLED MANUALLY WITH CAREFUL HAND EXCAVATION BY THE CONTRACTOR AND PROTECTED BY THE CONTRACTOR DURING THE COURSE OF THE DISTURBANCE UNDER THE SUPERVISION AND DIRECTION OF A RAILROAD SIGNAL REPRESENTATIVE.
 - ✓ THE FINAL PLANS SHOULD INCLUDE A NOTE STATING THAT "NORFOLK SOUTHERN WILL BE PROVIDED AS-BUILT DRAWINGS SHOWING THE ACTUAL CLEARANCES AS CONSTRUCTED. DEPTH, SIZE, AND LOCATION OF ALL FOUNDATION COMPONENTS SHALL BE SHOWN ON THE DRAWINGS."

BURLINGTON NORTHERTN SANTA FE RAILROAD SPECIFIC NOTES

- \mathcal{I} \square THE CONTRACTOR FOR THE STATE SHALL EXECUTE BNSF RAILWAY'S EXHIBIT C AND C1 AGREEMENT IDENTIFYING CONTRACTOR REQUIREMENTS.
 - ✓ THE CONTRACTOR WILLL BE REQUIRED TO SUBMIT PLANS ACCORDING TO BNSF GUIDELINES FOR APPROVAL. THESE PLANS INCLUDE, BUT ARE NOT LIMITED TO, SHORING, FALSEWORK, DEMOLITION, ERECTION, AND DRILLING SHAFT PLANS.

ILLINOIS CENTRAL RAILROAD SPECIFIC NOTES

 \mathcal{I} \square THE CONTRACTOR SHALL INSTALL THE NECESSARY EROSION CONTROL ITEMS TO PREVENT THE FILL SLOPES FROM CONTAMINATING THE RAILROAD BALLAST.



Kay Ivey

Governor

ALABAMA DEPARTMENT OF TRANSPORTATION

WEST CENTRAL REGION OFFICE OF THE REGION ENGINEER 204 Marina Drive, Suite 100 Tuscaloosa, Alabama 35406 Telephone: 205-562-3099 Fax: 205-349-3487



John R. Cooper Transportation Director

WRITTEN SUMMARY

MEMORANDUM

DATE: July 6, 2017

- TO: Steven E. Walker, P.E. State Design Engineer Design Bureau
- ATTN: Oretta D. Clemons Rail-Highway Programs Manager
- FROM: Nick Taylor, P.E. Design Section Engineer
- RE: STPAA-0017(571) CPMS # 100066424 Resurfacing SR-17 from just south of SR-8 (US-80) Interchange at MP 136.438 to the Intersection of SR-7 at MP 140.427 Alabama Great Southern Railroad (AGS); DOT No. 726143F; RR MP 268.28 Sumter County

The referenced project crosses Alabama Great Southern Railroad, at approximately AGS railroad MP 268.28.

The proposed work, to be performed within the railroad's ROW, is planing 1.6 inches, placing approximately 180 lbs./sq. yd. of asphalt, and replacing existing striping/pavement markings. The work being performed on the railroad's ROW will take approximately 5 working days.

Please note that AGS Railroad is to add 2" reflective striping on cross bucks, per MUTCD standards.

Project notes will be provided as needed to ensure proper coordination between the project office, the contractor, and AGS Railroad.

This summary is provided for your use in submitting to the Railroad along with the plans. If additional information is needed, please don't hesitate to call this office.

NT/lkb Cc: file