RESOLUTION NO. 4076

A RESOLUTION AUTHORIZING THE CITY OF MILES CITY TO ENTER INTO A GRADE CROSSING SIGNALS TRI-PARTY AGREEMENT WITH THE MONTANA DEPARTMENT OF TRANSPORTATION AND BNSF RAILWAY COMPANY.

WHEREAS, the Montana Department of Transportation and the BNSF Railway Company will be funding the installation of crossing signal equipment at the Spotted Eagle Road railroad crossing, and desire to enter into an Agreement with the City pertaining to the same, and in doing so for the City to agree to undertake certain responsibilities pertaining to the project, including the installation and maintenance of advanced railroad crossing signs and pavement marking and other related obligations;

NOW THEREFORE BE IT RESOLVED by the City Council of Miles City, Montana, as follows:

- 1. The "GRADE CROSSING SIGNALS TRI-PARTY AGREEMENT," attached hereto as Exhibit "A", and made a part hereof, is hereby approved and adopted by this Council.
- 2. The Mayor of the City of Miles City is hereby empowered and authorized to execute said Agreement on behalf of the City of Miles City and bind the City of Miles City thereto.

SAID RESOLUTION FINALLY PASSED AND ADOPTED BY A DULY CONSTITUTED QUORUM OF THE CITY COUNCIL OF THE CITY OF MILES CITY, MONTANA, AT A DULY CALLED MEETING THIS 11TH DAY OFJULY, 2017.

John Hollowell, Mayor

ATTEST:

Lorrie Pearce, City Clerk

GRADE CROSSING SIGNALS TRI-PARTY AGREEMENT RR XING-SPOTTED EAGLE RD RRP 9(18), [9123] CUSTER COUNTY, MONTANA

DIVISION - Montana SUB - Forsyth LS - 40

RR Milepost 79.07 U.S. DOT 092 656Y

WITNESSETH:

WHEREAS, in the interest of aiding vehicular travel and public safety, the STATE is undertaking a project RRP 9(18), [9123] to upgrade the existing at-grade crossing signals and activation equipment as shown in the scope of work. This project is located at crossing U.S. DOT 092 656Y as indicated on map marked exhibit "A" attached hereto and by this reference made a part hereof;

WHEREAS, the parties agree that the RAILROAD will receive no real benefit from the installation of the crossing signal equipment;

WHEREAS, the **STATE will pay 80 percent** of the acquisition and installation of crossing signal equipment, with STATE, using, in part, Federal Section 130 funds, and the **RAILROAD will pay 20 percent** and consents to acquire and install the crossing signal equipment as shown in scope of work, and upon the terms and conditions herein stated.

WHEREAS, the CITY will have in place signs and pavement markings as indicated and shall maintain them as per paragraph XV;

NOW, THEREFORE, in consideration of the mutual covenants herein contained, the parties agree as follows:

I Scope of Work

RAILROAD signal work funded by project.

- 1. Total replacement of existing signal system with new mast mounted 12inch LED flashing lights and gates in accordance to the Manual on Uniform Traffic Control Device (MUTCD).
- 2. Engineering and acquisition of material for signal installation.
- 3. Installation of constant warning time circuitry.
- 4. Installation of new signal hut a minimum of thirty (30) feet from shoulder of roadway in accordance to the MUTCD.

П

The crossing signal equipment will be installed at the railroad grade crossing shown on Exhibit "A" attached, in accordance with the <u>Manual on Uniform Traffic Control Devices</u> and in accordance with plans and estimates prepared by the RAILROAD and approved by the STATE and Federal Highway Administration.

Eighty percent of the cost of materials and labor to install the crossing signal equipment will be paid by the STATE, using, in part, Federal Section 130 funds as provided in 23 Code of Federal Regulations, including but not limited to Parts 1, 140 (subpart I), 172, 646, hereafter referred to as "23 CFR", which is hereby incorporated into and made part of this agreement by reference.

IV

Preliminary engineering costs are part of the RAILROAD's overhead rates. Preliminary engineering includes all costs incurred for developing this agreement.

\mathbf{v}

The RAILROAD will, using its own forces and under its own labor agreements, install the crossing signal equipment. The RAILROAD will furnish all materials from its store stock or by purchase in accordance with the provisions of 23 CFR.

Should it become necessary for the RAILROAD to obtain the services of a consultant after this agreement is completed and due to any exigency of the RAILROAD and the project, the STATE and the RAILROAD will mutually agree, in writing, as to the area of need and the RAILROAD's selection of a consultant. All work performed and costs incurred under this agreement will be in accordance with 23 CFR and 48 Code of Federal Regulations, including but not limited to Chapter 1, Part 31, hereafter referred to as "48 CFR", which is hereby incorporated into and made part of this agreement by reference.

VI

The RAILROAD will dispose of all scrap from the railroad's work covered in this agreement at STATE expense.

VII

The RAILROAD will provide a detailed estimate of RAILROAD construction engineering, installation labor and material costs required for this project. The STATE will pay for eighty percent for the acquisition and installation of crossing signal equipment, with STATE and Federal funds, based on the actual cost of labor and material. The detailed estimate will be titled Exhibit "B", attached hereto and by this reference made part hereof. If electrical service is required from a public utility the RAILROAD will provide an estimated installation cost in Exhibit "B".

VIII

The RAILROAD may submit progress bills to the STATE during the progress of the work included in this agreement for the actual cost of services and expenses incurred by the RAILROAD. The STATE will reimburse the RAILROAD for the actual cost and expense incurred in connection with said work. Actual cost reimbursed must be in accordance with the provisions of 23 CFR.

It is further agreed that the RAILROAD will make every effort to finalize and complete billing of all incurred costs no later than six (6) months after installation. All cost records of the RAILROAD pertaining to this project will be subject to inspection and audit at any time by representatives of the STATE, including the legislative auditor and fiscal analyst, and the Federal Highway Administration. All such records will be retained for a period of not less than three (3) years from the date of final payment.

IX

Upon completion of the installation of the crossing signal equipment, the RAILROAD, at its expense, will operate and maintain the crossing signal equipment in a proper condition; provided, however, in the event of passage of law by the State of Montana or other governmental authority

providing for the apportionment of cost of maintenance of grade crossing signals, the RAILROAD will have the benefit of such law.

X

STATE Administrative rule ARM 18.6.311 stipulates; "The road authority will own the railroad signal".

If the grade crossing is abandoned, or if for any reason the signals are no longer required at this location, the RAILROAD and CITY will determine if the signals are to be installed at another location or used for replacement parts.

XI

If a railway or a highway improvement project necessitates a rearrangement, relocation, or alteration of the signals at the crossing, the party whose improvement causes such change will pay the cost thereof.

XII

If the RAILROAD enters into a contract or agreement with a contractor to perform any of the work which the RAILROAD is required to perform under the terms of this agreement, the RAILROAD, for itself, its assigns, and successors in interest, agrees that it will not discriminate in the choice of contractors and will include all the nondiscrimination provisions set forth in Exhibit "C" attached hereto and made a part hereof, in any such contract or agreement.

XIII

The RAILROAD will, upon finding damage to the crossing signal equipment, immediately notify the city police department at (406) 234-6273.

Pursuant to Mont. Admin. R. § 18.6.311(3), the STATE will pay for the repair or replacement cost (damage maintenance cost) of the signal and activation equipment in the event of damage and the responsible party for the damage cannot be identified or will not pay.

XIV

If any of the crossing signal equipment installed pursuant to this agreement cannot, through age, be maintained, or by virtue of their obsolescence require replacement, the cost of installation of new crossing signal equipment will be negotiated by the parties hereto on the basis of the current Federal Aid Railroad Signal Program participation and applicable STATE signal warrants at the time of replacement.

XV

The CITY will have in place advanced railroad crossing warning signs and standard pavement markings, if required by the <u>Manual on Uniform Traffic Control Devices</u> (MUTCD) at this crossing prior to the acceptance on this project by STATE (see Exhibit "D" attached hereto and by this reference made part hereof for partial details).

The CITY assumes full responsibility for the maintenance of advanced warning signs and pavement markings, and agrees to hold harmless and indemnify the STATE for any claim, damages or loss, in whole or in part, caused by or due to the failure to maintain the advanced warning signs and markings or other requirements of the MUTCD.

XVI

In addition to the terms herein set forth, the STATE agrees to administer the project with respect to inspection and acceptance. The STATE's obligation will end upon acceptance of the completed said project and reimbursements to the RAILROAD.

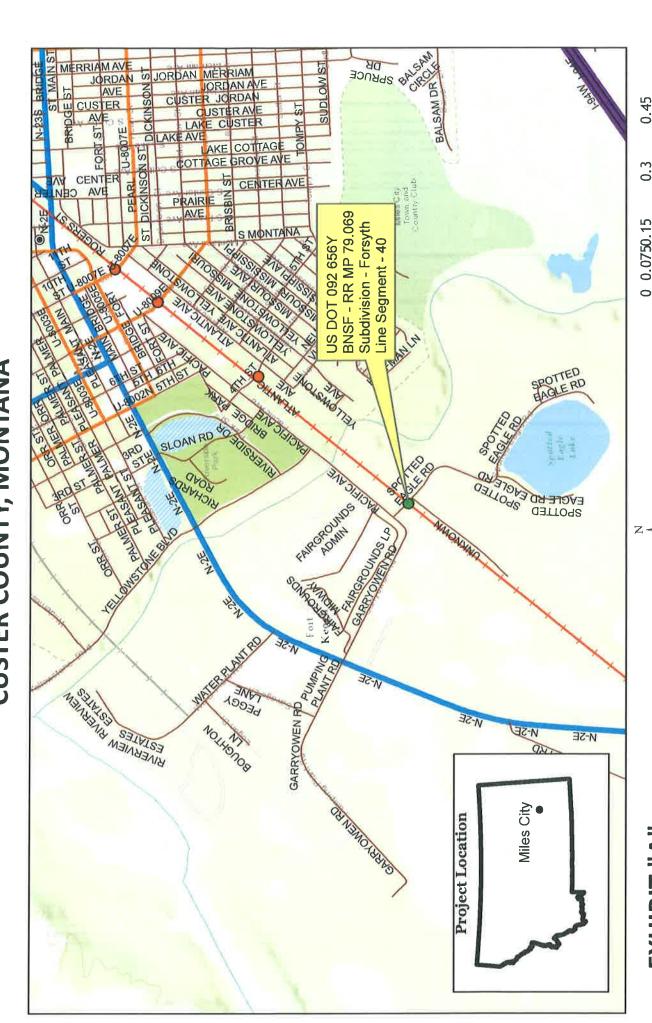
XVII

This agreement will inure to the benefit of and be binding on the parties hereto, their successors, and assigns.

APPROVED FOR LEGAL CONTENT Signature Date	STATE OF MONTANA DEPARTMENT OF TRANSPORTATION
Civil Rights Approval Signature Date 5. 7 7	BY: Dustin Rouse, P.E. Preconstruction Engineer
·	BNSF RAILWAY COMPANY
	BY: Thompson
	TITLE: DIR PUBLIC PROJECTS
	CITY OF MILES CITY
ATTEST: Jame Jeace Clerk and Recorder	BY: CAN A TOURNAL

TITLE: MAYOR

RRXING - SPOTTED EAGLE ROAD CUSTER COUNTY, MONTANA RRP 9(18), [9123]



0.45

EXHIBIT "A"

EXHIBIT "B"

***** MAINTAIN PROPRIETARY CONFIDENTIALITY *****

BNSF RAILWAY COMPANY FHPM ESTIMATE FOR STATE OF MONTANA

LOCATION MILES CITY DETAILS OF ESTIMATE PLAN ITEM: 000276435 VERSION: 4

PURPOSE, JUSTIFICATION AND DESCRIPTION

SPOTTED EAGLE RD - MILES CITY, MT; REPLACE CONSTANT WARNING / FLASHERS / GATES / REMOTE HOUSE; MONTANA DIV; FORSYTH SUBDIV; LS 40; MP 79.07; DOT# 092656Y; SEQ# 61649.

MONTHLY POWER UTILITY COST CENTER: 61701.

 $\hbox{THE MATERIAL LIST BELOW REFLECTS TYPICAL REPRESENTATIVE PACKAGES USED FOR ESTIMATING PURPOSES ONLY. } \\$

THIS ESTIMATE IS GOOD FOR 90 DAYS. THEREAFTER THE ESTIMATE IS SUBJECT TO CHANGE IN COST FOR LABOR, MATERIAL, AND OVERHEAD.

CONTRACTS HAVE BEEN ESTABLISHED FOR PORTIONS OF SIGNAL WORK ON THE BNSF RAILROAD.

THE STATE OF MONTANA IS FUNDING 80% OF THIS PROJECT, BNSF IS FUNDING 20%.

MAINTAIN PROPRIETARY CONFIDENTIALITY.

PRIMARY FUNDING SOURCE IS FHWA ** BUY AMERICA(N) APPLIES **

DESCRIPTION	QUANTITY U/M	COST	TOTAL \$

LABOR			
SIGNAL FIELD LABOR - CAP	1232.0 MH	37,983	
SIGNAL SHOP LABOR - CAP	192.0 MH	6,471	
PAYROLL ASSOCIATED COSTS		29,197	
DA OVERHEADS		43,168	
EQUIPMENT EXPENSES		11,975	
INSURANCE EXPENSES		7,463	
TOTAL LABOR COST		136,257	136,257

MATERIAL			
ARRESTOR, MDSA-2 XS	1.0 EA N	750	
BATTERY, 10 VGL-255, 18 VGL-350	1.0 LS N	7,933	
BELLS	2.0 EA N	392	
BUNGALOW 8X8 W/ AC	1.0 LS N	9,999	
BUNGALOW MATERIAL	1.0 LS N	7,476	
CABLE, 2C/6 TW	500.0 FT N	570	
CABLE, 3C/2	500.0 FT N	2,720	
CABLE, 5C/10	70.0 FT N	128	
CABLE, 5C/6	500.0 FT N	1,950	
CABLE, 7C/14	500.0 FT N	835	
CHARGERS, 12/80 (20/40/60)	2.0 EA N	2,170	
CONSTANT WARNING, XP4, 1TK	1.0 EA N	17,805	
EVENT RECORDER	1.0 EA N	3,560	
FIELD MATERIAL	1.0 LS N	7,372	
FILL DIRT	20.0 CY N	500	
FOUNDATION, CONCRETE	2.0 EA N	600	
GATE KEEPER	2.0 EA N	3,726	
GATE MECHANISM, S-60	2.0 EA N	12,032	
LED LIGHT	10.0 EA N	2,010	
LIGHT OUT DETECTOR	1.0 EA N	1,023	
RELAY, DAX	1.0 EA N	1,000	
SHUNT, NBS	2.0 EA N	2,232	
SIDELIGHT, 1-WAY	1.0 EA N	848	
SURFACE ROCK	10.0 CY N	500	
TELLULAR DEVICE, RTU	1.0 EA N	3,052	
X REM HSE - ARRESTOR, MDSA-2 XS	1.0 EA N	750	
X REM HSE - BATTERY, 18 VGL-350	1.0 LS N	5,634	

X REM HSE - BUNGALOW 8X8 W/ AC	1,0 LS N	9,999	
X REM HSE - BUNGALOW MATERIAL	1.0 LS N	3,928	
X REM HSE - CABLE, 2C/6 TW	500.0 FT N	570	
X REM HSE - CABLE, 3C/2	500.0 FT N	2,720	
X REM HSE - CABLE, 7C/14	1500.0 FT N	2,505	
X REM HSE - CHARGER, 12/80 (20/40/60)	1.0 LS N	1,085	
X REM HSE - CONSTANT WARNING, XP4, 1TK	1.0 EA N	17,805	
X REM HSE - CONVERTOR, 10-10	1.0 EA N	202	
X REM HSE - FIELD MATERIAL	1.0 LS N	4,832	
X REM HSE - FILL DIRT	20.0 CY N	500	
X REM HSE - GENERATOR, AGC-3	1.0 EA N	333	
X REM HSE - INDUCTOR, DUMMY LOAD	1.0 EA N	820	
X REM HSE - RELAY, DAX	1.0 EA N	1,000	
X REM HSE - SHUNT, NBS	1.0 EA N	1,116	
X REM HSE - SURFACE ROCK	10.0 CY N	500	
OFFLINE TRANSPORTATION		1,811	
TOTAL MATERIAL COST		147,293	147,293

OTHER			

CONTRACT ENGINEERING	1.0 LS N	12,000	
DIRECTIONAL BORING	150.0 FT N	7,500	
	-	7,000	
TOTAL OTHER ITEMS COST		19,500	19,500
PROJECT SUBTOTAL			303,050
CONTINGENCIES			30,305
BILL PREPARATION FEE			3,334
GROSS PROJECT COST			336,689
LESS COST PAID BY BNSF			67,338
			07,338
TOTAL BILLABLE COST			269,351

MDT NONDISCRIMINATION AND

DISABILITY ACCOMMODATION NOTICE

Montana Department of Transportation ("MDT") is committed to conducting all of its business in an environment free from discrimination, harassment, and retaliation. In accordance with State and Federal law MDT prohibits any and all discrimination and protections are all inclusive (hereafter "protected classes") by its employees or anyone with whom MDT does business:

Federal protected classes

Race, color, national origin, sex, sexual orientation, gender identity, age, disability, & Limited English Proficiency

State protected classes

Race, color, national origin, parental/marital status, pregnancy, childbirth, or medical conditions related to pregnancy or childbirth, religion/creed, social origin or condition, genetic information, sex, sexual orientation, gender identification or expression, national origin, ancestry, age, disability mental or physical, political or religious affiliations or ideas, military service or veteran status

For the duration of this contract/agreement, the PARTY agrees as follows:

(1) Compliance with Regulations: The PARTY (hereinafter includes consultant) will comply with all Acts and Regulations of the United States and the State of Montana relative to Non-Discrimination in Federally and State-assisted programs of the U.S. Department of Transportation and the State of Montana, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

(2) Non-discrimination:

- a. The PARTY, with regard to the work performed by it during the contract, will not discriminate, directly or indirectly, on the grounds of any of the protected classes in the selection and retention of subcontractors, including procurements of materials and leases of equipment, employment, and all other activities being performed under this contract/agreement.
- b. PARTY will provide notice to its employees and the members of the public that it serves that will include the following:
 - i. Statement that PARTY does not discriminate on the grounds of any protected classes.
 - ii. Statement that PARTY will provide employees and members of the public that it serves with reasonable accommodations for any known disability, upon request, pursuant to the Americans with Disabilities Act as Amended (ADA).
 - iii. Contact information for PARTY's representative tasked with handling non-discrimination complaints and providing reasonable accommodations under the ADA.
 - iv. Information on how to request information in alternative accessible formats.
- c. In accordance with Mont. Code Ann. § 49-3-207, PARTY will include a provision, in all of its hiring/subcontracting notices, that all hiring/subcontracting will be on the basis of merit and qualifications and that PARTY does not discriminate on the grounds of any protected class.

(3) Participation by Disadvantaged Business Enterprises (DBEs):

- a. If the PARTY receives federal financial assistance as part of this contract/agreement, the PARTY will make all reasonable efforts to utilize DBE firms certified by MDT for its subcontracting services. The list of all currently certified DBE firms is located on the MDT website at mdt.mt.gov/business/contracting/civil/dbe.shtml
- b. By signing this agreement the PARTY assures that: The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.
- c. PARTY must include the above assurance in each contract/agreement the PARTY enters.
- (4) Solicitation for Subcontracts, Including Procurement of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation, made by the PARTY for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the PARTY of the PARTY's obligation under this contract/agreement and all Acts and Regulations of the United States and the State of Montana related to Non-Discrimination.
- (5) Information and Reports: The PARTY will provide all information and reports required by the Acts, Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information and its facilities as may be determined by MDT or relevant US DOT Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the PARTY will so certify to MDT or relevant US DOT Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

- (6) Sanctions for Noncompliance: In the event of a PARTY's noncompliance with the Non-discrimination provisions of this contract/agreement, MDT will impose such sanctions as it or the relevant US DOT Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the PARTY under the contract/agreement until the PARTY complies; and/or
 - b. Cancelling, terminating, or suspending the contract/agreement, in whole or in part.
- (7) Pertinent Non-Discrimination Authorities: During the performance of this contract/agreement, the PARTY, for itself, its assignees, and successor in interest, agrees to comply with the following non-discrimination statues and authorities; including but not limited to:

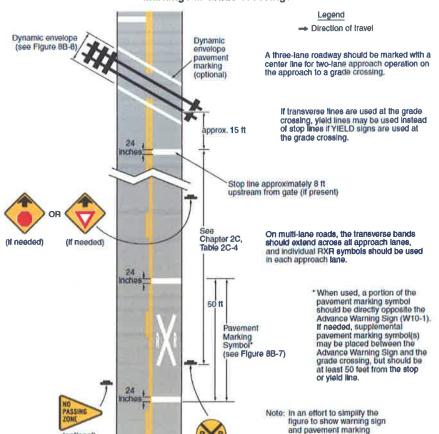
Federal

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airways Improvement Act of 1982, (49 U.S.C. § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (broadened the scope, coverage, and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients, and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibits discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration's Non-Discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which prevents discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English Proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. § 1681 et seq.).
- Executive Order 13672 prohibits discrimination in the civilian federal workforce on the basis of gender identity and in hiring by federal contractors on the basis of both sexual orientation and gender identity.

State

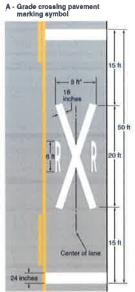
- Mont. Code Ann. § 49-3-205 Governmental services;
- Mont. Code Ann. § 49-3-206 Distribution of governmental funds;
- Mont. Code Ann. § 49-3-207 Nondiscrimination provision in all public contracts.
- (8) Incorporation of Provisions: The PARTY will include the provisions of paragraph one through seven in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and/or directives issued pursuant thereto. The PARTY will take action with respect to any subcontract or procurement as MDT or the relevant US DOT Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the PARTY becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the PARTY may request MDT to enter into any litigation to protect the interests of MDT. In addition, the PARTY may request the United States to enter into the litigation to protect the interests of the United States.

Figure 8B-6. Example of Placement of Warning Signs and Pavement Markings at Grade Crossings



(optional)

Figure 8B-7. Grade Crossing Pavement Markings



"Width may vary according to lane width

For more information

go to website: http://mutcd.fhwa.dot.gov

Table 2C-4. Guidelines for Advance Placement of Warning Signs

placement, not all required traffic

Posted or 85th- Percentile Speed	Advance Placement Distance ¹								
	Condition A: Speed reduction and lane changing in heavy traffic ²	Condition B: Deceleration to the listed advisory speed (mph) for the condition							
		O ²	104	204	304	404	504	604	704
20 mph	225 ft	100 ft	N/A ⁵		-				1,
25 mph	325 ft	100 ft ⁶	N/A ⁶	N/A ^s	_		-		_
30. mph	460 ft	100 fts	N/A ^s	NA		-			_
35 mph	565 ft	100 ft ⁶	N/A ⁶	N/A ⁶	N/A ⁶		-	-	-
40 mph	670 ft	126 ft	100 ft ⁶	100 R ^a	N/A ⁶	-		-	-
45 mph	775 ft	175 ft	125 ft	100 ft ^a	100 ft ⁶	N/A ⁶		-	
60 mph	885 ft	250 R	200 ft	175 ft	125 ft	100 Nº		-	
65 mph	990 ft	326 ft	275 ft	225 h	200 ft	126 ft	N/A ⁵	==:	5=
60 mph	1,100 ft	400 ft	350 ft	325 ft	276 ft	200 ft	100 ft ^e		
66 mph	1,200 ft	475 ft	450 ft	400 ft	350 ft	275 ft	200 ft	100 ft ^a	
70 mph	1,250 ft	650 ft	625 ft	500 ft	450 ft	376 ft	275 ft	160 ft	_
75 mph	1,350 ft	650 ft	625 ft	600 ft	550 ft	475 ft	375 ft	250 ft	100 ft ⁶

¹The distances are adjusted for a sign legibility distance of 180 feet for Condition A. The distances for Condition B have been adjusted for a sign legibility distance of 250 feet, which is appropriate for an alignment warning symbol sign. For Conditions A and B, warning signs with less than 6-inch legend or more than four words, a minimum of 100 feet should be added to the advance placement distance to provide adequate legibility of the warning sign.

² Typical conditions are locations where the road user must use extra time to adjust speed and change lanes in heavy traffic because of a complex driving situation. Typical signs are Merge and Right Lane Ends. The distances are determined by providing the driver a PRT of 14.0 to 14.5 seconds for vehicle maneuvers (2005 AASHTO Policy, Exhibit 3-3, Decision Sight Distance, Avoidance Maneuver E) minus the legibility distance of 180 feet for the appropriate sign.

⁹ Typical condition is the warning of a potential stop situation. Typical signs are Stop Ahead, Yield Ahead, Signal Ahead, and Intersection Warning signs. The distances are based on the 2005 AASHTO Policy, Exhibit 3-1, Stopping Sight Distance, providing a PRT of 2.5 seconds, a deceleration rate of 11.2 feet/second², minus the sign legibility distance of 180 feet.

⁴Typical conditions are locations where the road user must decrease speed to maneuver through the warned condition. Typical signs are Turn, Curve, Reverse Turn, or Reverse Curve. The distance is determined by providing a 2.5 second PRT, a vehicle deceleration rate of 10 feet/second², minus the sign legibility distance of 250 feet.

No suggested distances are provided for these speeds, as the placement location is dependent on site conditions and other signing. An alignment warning sign may be placed anywhere from the point of curvature up to 100 feet in advance of the curve. However, the alignment warning sign should be installed in advance of the curve and at least 100 feet from any other signs.

⁶ The minimum advance placement distance is listed as 100 feet to provide adequate spacing between signs.