



# *Annual WBAPS 2019*

WEB ACCIDENT PREDICTION SYSTEM

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*Accident Prediction Report for  
Public at-Grade Highway-Rail Crossings*

*Including:*

Disclaimer/Abbreviation Key  
Accident Prediction List  
Abbreviated Inventory Profile

*Provided by:*

*Federal Railroad Administration  
Office of Safety Analysis  
Highway-Rail Crossing Safety & Trespass Prevention*

*Data Contained in this Report:*

STATE: ND  
CITY: MINOT  
RAILROAD: BNSF,ATK,CP

*Date Prepared:* 6/13/2019



U.S. Department  
of Transportation  
**Federal Railroad  
Administration**

## **USING DATA PRODUCED BY WBAPS** **(Web Accident Prediction System)**

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WBAPS generates reports listing public highway-rail intersections for a State, County, City or railroad ranked by predicted collisions per year. These reports include brief lists of the Inventory record and the collisions over the last 10 years along with a list of contacts for further information. These data were produced by the Federal Railroad Administration's Web Accident Prediction System (WBAPS).

WBAPS is a computer model which provides the user an analytical tool, which combined with other site-specific information, can assist in determining where scarce highway-rail grade crossing resources can best be directed. This computer model does not rank crossings in terms of most to least dangerous. Use of WBAPS data in this manner is incorrect and misleading.

WBAPS provides the same reports as PCAPS, which is FRA's PC Accident Prediction System. PCAPS was originally developed as a tool to alert law enforcement and local officials of the important need to improve safety at public highway-rail intersections within their jurisdictions. It has since become an indispensable information resource which is helping the FRA, States, railroads, Operation Lifesaver and others, to raise the awareness of the potential dangers at public highway-rail intersections. The PCAPS/WBAPS output enables State and local highway and law enforcement agencies identify public highway-rail crossing locations which may require additional or specialized attention. It is also a tool which can be used by state highway authorities and railroads to nominate particular crossings which may require physical safety improvements or enhancements.

The WBAPS accident prediction formula is based upon two independent factors (variables) which includes (1) basic data about a crossing's physical and operating characteristics and (2) five years of accident history data at the crossing. These data are obtained from the FRA's inventory and accident/incident files which are subject to keypunch and submission errors. Although every attempt is made to find and correct errors, there is still a possibility that some errors still exist. Erroneous, inaccurate and non-current data will alter WBAPS accident prediction values. While approximately 100,000 inventory file changes and updates are voluntarily provided annually by States and railroads and processed by FRA into the National Inventory File, data records for specific crossings may not be completely current. Only the intended users (States and railroads) are really knowledgeable as to how current the inventory data is for a particular State, railroad, or location.

It is important to understand the type of information produced by WBAPS and the limitations on the application of the output data. WBAPS does not state that specific crossings are the most dangerous. Rather, the WBAPS data provides an indication that conditions are such that one crossing may possibly be more hazardous than another based on the specific data that is in the program. It is only one of many tools which can be used to assist individual States, railroads and local highway authorities in determining where and how to initially focus attention for improving safety at public highway-rail intersections. WBAPS is designed to nominate crossings for further evaluation based only upon the physical and operating characteristics of specific crossings as voluntarily reported and updated by States and railroads and five years of accident history data.

PCAPS and WBAPS software are not designed to single out specific crossings without considering the many other factors which may influence accident rates or probabilities. State highway planners may or may not use PCAPS/WBAPS accident prediction model. Some States utilize their own formula or model which may include other geographic and site-specific factors. At best, PCAPS and WBAPS software and data nominates crossings for further on-the-ground review by knowledgeable highway traffic engineers and specialists. The output information is not the end or final product and the WBAPS data should not be used for non-intended purposes.

It should also be noted that there are certain characteristics or factors which are not, nor can be, included in the WBAPS database. These include sight-distance, highway congestion, bus or hazardous material traffic, local topography, and passenger exposure (train or vehicle), etc. Be aware that PCAPS/WBAPS is only one model and that other accident prediction models which may be used by States may yield different, by just as valid, results for ranking crossings for safety improvements.

Finally, it should be noted that this database is not the sole indicator of the condition of a specific public highway-rail intersection. The WBAPS output must be considered as a supplement to the information needed to undertake specific actions aimed at enhancing highway-rail crossing safety at locations across the U.S. The authority and jurisdiction to appropriate resources towards the safety improvement or elimination of specific crossings lies with the individual States.



## **ABBREVIATION KEY**

**for use with WBAPS Reports**

The lists produced are only for public at-grade highway-rail intersections for the entity listed at the top of the page. The parameters shown are those used in the collision prediction calculation.

<b>RANK:</b>	Crossings are listed in order and ranked with the highest collision prediction value first.
<b>PRED COLLS:</b>	The accident prediction value is the probability that a collision between a train and a highway vehicle will occur at the crossing in a year.
<b>CROSSING:</b>	The unique sight specific identifying DOT/AAR Crossing Inventory Number.
<b>RR:</b>	The alphabetic abbreviation for the railroad name.
<b>CITY:</b>	The city in (or near) which the crossing is located.
<b>ROAD:</b>	The name of the road, street, or highway (if provided) where the crossing is located.
<b>NUM OF COLLISIONS:</b>	The number of accidents reported to FRA in each of the years indicated. Note: Most recent year is partial year (data is not for the complete calendar year) unless Accidents per Year is 'AS OF DECEMBER 31'.
<b>DATE CHG:</b>	The date of the latest change of the warning device category at the crossing which impacts the collision prediction calculation, e.g., a change from crossbucks to flashing lights, or flashing lights to gates. The accident prediction calculation utilizes three different formulas, on each for (1) passive devices, (2) flashing lights only, and (3) flashing lights with gates. When a date is shown, the collision history prior to the indicated year-month is not included in calculating the accident prediction value.
<b>WD:</b>	The type of warning device shown on the current Inventory record for the crossing where: FQ=Four Quad Gates; GT = All Other Gates; FL = Flashing lights; HS = Wigwags, Highway Signals, Bells, or Other Activated; SP = Special Protection (e.g., a flagman); SS = Stop Signs; XB = Crossbucks; OS = Other Signs or Signals; NO = No Signs or Signals.
<b>TOT TRNS:</b>	Number of total trains per day.
<b>TOT TRKS:</b>	Total number of railroad tracks between the warning devices at the crossing.
<b>TTBL SPD:</b>	The maximum timetable (allowable) speed for trains through the crossing.
<b>HWY PVD:</b>	Is the highway paved on both sides of the crossing?
<b>HWY LNS:</b>	The number of highway traffic lanes crossing the tracks at the crossing.
<b>AADT:</b>	The Average Annual Daily Traffic count for highway vehicles using the crossing.



**PUBLIC HIGHWAY-RAIL CROSSINGS RANKED BY PREDICTED  
ACCIDENTS PER YEAR AS OF 12/31/2018\***

\*Num of Collisions: Most recent year is partial year (data is not for the complete calendar year) unless Accidents per Year is 'AS  
OF DECEMBER 31'.

RANK	PRED COLLS.	CROSSING	RR	STATE	COUNTY	CITY	ROAD	NUM OF COLLISIONS					DATE CHG	W D	TOT TRN	TOT TRK	TTBL SPD	HWY PVD	HWY LNS	AADT
								18*	17	16	15	14								
1	0.030121	093077T	BNSF	ND	WARD	MINOT	27TH ST SE	0	0	0	0	0	GT	34	2	60	YES	2	5,440	
2	0.020891	071626Y	BNSF	ND	WARD	MINOT	WARD CR 12	0	0	0	0	1	XB	0	1	10	YES	2	2,490	
3	0.020514	071923S	BNSF	ND	WARD	MINOT	5TH AV SW	0	0	0	0	0	GT	40	2	35	YES	2	720	
4	0.019384	093076L	BNSF	ND	WARD	MINOT	55TH STREET	0	0	0	0	0	GT	34	1	60	NO	2	1,225	
5	0.019178	093868F	BNSF	ND	WARD	MINOT	GOLF COURSE RD	0	0	0	0	0	GT	40	2	55	YES	2	540	
6	0.018697	071920W	BNSF	ND	WARD	MINOT	MAPLE ST	0	0	0	0	0	GT	40	3	35	YES	2	485	
7	0.013397	071929H	BNSF	ND	WARD	MINOT	33RD ST SW	0	0	0	0	0	GT	40	2	55	NO	2	125	
8	0.012548	093081H	BNSF	ND	WARD	MINOT	55TH STREET	0	0	0	0	0	GT	12	1	60	YES	2	1,225	
9	0.009666	093079G	BNSF	ND	WARD	MINOT	27TH STREET SE	0	0	0	0	0	GT	4	2	60	NO	2	5,485	
10	0.006143	071927U	BNSF	ND	WARD	MINOT	BURDICK EXPRES	0	0	0	0	0	GT	1	1	10	YES	4	4,630	
11	0.000446	093078A	BNSF	ND	WARD	MINOT	4TH AVE SE	0	0	0	0	0	XB	0	1	60	YES	2	50	
12	0.000246	093089M	BNSF	ND	WARD	MINOT	4TH AVE NE	0	0	0	0	0	XB	0	1	60	NO	2	1,545	
13	0.000168	071627F	BNSF	ND	WARD	MINOT	CO19	0	0	0	0	0	XB	0	1	10	NO	2	60	
<b>TTL:</b>								<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>								





## ABBREVIATED HIGHWAY-RAIL CROSSING INVENTORY PROFILE

Crossing <b>093077T</b>	State ND	County WARD	City MINOT	Highway CO 19	Railroad BNSF
Division MONTANA	Subdivision K O		Milepost 0200.974	Train Movements 17 Day thru / 17 Night thru	
Typical Train Speed From 1 to 60 MPH			Type Development 14	# Traffic Lanes 2	Highway Paved? 1 / 1
Passive Devices			Active Devices 2 R-W GATE		
Tracks 2 MAIN	Highway System 3		Function Class 1		AADT 5440
					% Trucks 10

Crossing <b>071626Y</b>	State ND	County WARD	City MINOT	Highway CR 12	Railroad BNSF
Division TWIN CITIES	Subdivision TATMAN SPUR		Milepost 0000.483	Train Movements	
Typical Train Speed From 1 to 10 MPH			Type Development 14	# Traffic Lanes 2	Highway Paved? 1 / 0
Passive Devices 2 REFL XBUCK			Active Devices		
Tracks 1	Highway System 3		Function Class 0		AADT 2490
					% Trucks 20

Crossing <b>071923S</b>	State ND	County WARD	City MINOT	Highway L-5TH	Railroad BNSF
Division MONTANA	Subdivision GLASGOW		Milepost 0001.030	Train Movements 20 Day thru / 20 Night thru	
Typical Train Speed From 1 to 35 MPH			Type Development 13	# Traffic Lanes 2	Highway Paved? 1 / 1
Passive Devices 2 REFL XBUCK			Active Devices 2 R-W GATE		
Tracks 2 MAIN	Highway System 8		Function Class 1		AADT 720
					% Trucks 03

Crossing <b>093076L</b>	State ND	County WARD	City MINOT	Highway L-	Railroad BNSF
Division MONTANA	Subdivision K O		Milepost 0198.995	Train Movements 17 Day thru / 17 Night thru	
Typical Train Speed From 1 to 60 MPH			Type Development 11	# Traffic Lanes 2	Highway Paved? 1 / 1
Passive Devices			Active Devices 2 R-W GATE		
Tracks 1 MAIN	Highway System 8		Function Class 0		AADT 1225
					% Trucks 20

Crossing <b>093868F</b>	State ND	County WARD	City MINOT	Highway Not Yet Reported by State	Railroad BNSF
Division MONTANA	Subdivision GLASGOW		Milepost 0002.019	Train Movements 20 Day thru / 20 Night thru	
Typical Train Speed From 1 to 55 MPH			Type Development 13	# Traffic Lanes 2	Highway Paved? 1 / 2
Passive Devices 2 REFL XBUCK			Active Devices 2 R-W GATE		
Tracks 2 MAIN	Highway System 8		Function Class 1		AADT 540
					% Trucks 05

Crossing <b>071920W</b>	State ND	County WARD	City MINOT	Highway L-MAPLE	Railroad BNSF
Division MONTANA	Subdivision GLASGOW		Milepost 0000.875	Train Movements 20 Day thru / 20 Night thru	
Typical Train Speed From 1 to 35 MPH			Type Development 13	# Traffic Lanes 2	Highway Paved? 1 / 1
Passive Devices 1 REFL XBUCK / 2			Active Devices 2 R-W GATE		
Tracks 2 MAIN / 1	Highway System 8		Function Class 1		AADT 485
					% Trucks 05



## ABBREVIATED HIGHWAY-RAIL CROSSING INVENTORY PROFILE

Crossing <b>071929H</b>	State ND	County WARD	City MINOT	Highway local rural	Railroad BNSF
Division MONTANA	Subdivision GLASGOW		Milepost 0002.931	Train Movements 20 Day thru / 20 Night thru	
Typical Train Speed From 1 to 55 MPH			Type Development 12	# Traffic Lanes 2	Highway Paved? 1 / 1
Passive Devices			Active Devices 2 R-W GATE		
Tracks 2 MAIN	Highway System 8		Function Class 0		AADT 125    % Trucks 10

Crossing <b>093081H</b>	State ND	County WARD	City MINOT	Highway CR 12A	Railroad BNSF
Division MONTANA	Subdivision K O		Milepost 0198.995	Train Movements 5 Day thru / 2 Day switch / 5 Night thru	
Typical Train Speed From 1 to 60 MPH			Type Development 11	# Traffic Lanes 2	Highway Paved? 1 / 1
Passive Devices 2			Active Devices 2 R-W GATE		
Tracks 1 MAIN	Highway System 8		Function Class 0		AADT 1225    % Trucks 20

Crossing <b>093079G</b>	State ND	County WARD	City MINOT	Highway CO. 19	Railroad BNSF
Division MONTANA	Subdivision MINOT YD, ND		Milepost 0200.976	Train Movements 1 Day thru / 2 Day switch / 1 Night thru	
Typical Train Speed From 1 to 60 MPH			Type Development 14	# Traffic Lanes 2	Highway Paved? 1 / 1
Passive Devices 2 REFL XBUCK			Active Devices 2 R-W GATE		
Tracks 2	Highway System 3		Function Class 1		AADT 5485    % Trucks 10

Crossing <b>071927U</b>	State ND	County WARD	City MINOT	Highway princ art urban	Railroad BNSF
Division TWIN CITIES	Subdivision MINOT YARD		Milepost 0002.00	Train Movements 1 Day switch	
Typical Train Speed From 1 to 10 MPH			Type Development 13	# Traffic Lanes 4	Highway Paved? 1 / 1,2
Passive Devices			Active Devices 2 R-W GATE		
Tracks 1	Highway System 3		Function Class 1		AADT 4630    % Trucks 10

Crossing <b>093078A</b>	State ND	County WARD	City MINOT	Highway Not Yet Reported by State	Railroad BNSF
Division MONTANA	Subdivision K O		Milepost 0200.977	Train Movements	
Typical Train Speed From 1 to 60 MPH			Type Development 14	# Traffic Lanes 2	Highway Paved? 1 / 0
Passive Devices 2 REFL XBUCK			Active Devices		
Tracks 1	Highway System 8		Function Class 0		AADT 50    % Trucks 15

Crossing <b>093089M</b>	State ND	County WARD	City MINOT	Highway	Railroad BNSF
Division MONTANA	Subdivision K O		Milepost 0202.04	Train Movements	
Typical Train Speed From 1 to 60 MPH			Type Development 12	# Traffic Lanes 2	Highway Paved? 1 / 0
Passive Devices 2 REFL XBUCK			Active Devices		
Tracks 1	Highway System 8		Function Class 1		AADT 1545    % Trucks 20



**ABBREVIATED HIGHWAY-RAIL CROSSING INVENTORY PROFILE**

Crossing <b>071627F</b>	State ND	County WARD	City MINOT	Highway Not Yet Reported by State	Railroad BNSF
Division TWIN CITIES	Subdivision TATMAN SPUR	Milepost 0002.713	Train Movements		
Typical Train Speed From 1 to 10 MPH	Type Development 11	# Traffic Lanes 2	Highway Paved? 1 / 0		
Passive Devices 2 REFL XBUCK	Active Devices				
Tracks 1	Highway System 8	Function Class 0	AADT 60	% Trucks 15	