

**NATIONAL
HIGHWAY-RAIL CROSSING
INVENTORY**

**DATA FILE STRUCTURE
AND
FIELD INPUT SPECIFICATIONS**

National Highway-Rail Crossing Inventory Data File Structure and Field Input Specifications

FIELD NAME	FILE POSITION	FIELD TYPE	FIELD LENGTH	DEFINITION
crossing	1-7	A/N	7	Highway-rail Crossing Identification Number. Serves as the master identifier for the crossing. The DOT Crossing Identification Number is unique to this highway-rail crossing.
effdate	8-13	A/N	6	Beginning date for the crossing. The date 700101 is used in the original record if the crossing was in service at the time this file was organized. For crossings opened, closed or changed since then, the 'effective date' appears in the update record. (YYMMDD)
edate	14-19	A/N	6	'999999' appears in the most current record for each crossing. For a change to a crossing or a crossing closure, the day before the 'Effective Date' is placed as the EDATE of the record which is current before the update record is added. (YYMMDD)
reason	20	A/N	1	A code pertaining to the status of the pertinent highway-rail crossing record. 1 = changed crossing 2 = new crossing 3 = closed crossing 4 = correction in place (Use discontinued)
state	21-22	A/N	2	Code for the state where the highway-rail crossing is located. Uses assigned FIPS codes for states.
cntycd	23-26	A/N	4	Code for the county where the highway-rail crossing is located. Preceded by constant "C" in the first character. Uses FIPS codes assigned by county. (See the FRA Auxiliary Tables)
state2	27-28	A/N	2	Code for the state where the highway-rail crossing is located. Uses assigned FIPS codes for states. (See the FRA Auxiliary Tables)
citycd	29-32	A/N	4	Code for the city where the highway-rail crossing is located. Uses assigned FIPS codes for cities. (See the FRA Auxiliary Tables)
nearest	33	A/N	1	Code to indicate that the city nearest the highway-rail crossing is used in a record for a crossing not located in a city or town. This flag indicates whether the crossing is within or without the limits of a named locality.
railroad	34-37	A/N	4	Code for the railroad company responsible for maintenance of the highway-rail crossing. (See the FRA Auxiliary Tables)
rrdiv	38-51	A/N	14	Name of the operating division of the railroad responsible for maintenance of the highway-rail crossing. Not all railroads are divided into divisions.
rrsubdiv	52-65	A/N	14	Name of the operating subdivision of railroad responsible for maintenance of the highway-rail crossing. Not all railroads are divided into sub-divisions.
highway	66-72	A/N	7	Identification of highway at the highway-rail crossing by type and highway number.
street	73-89	A/N	17	Name of the street or road, spelled out.
rrid	90-99	A/N	10	Crossing Identification number other than the DOT-AAR number. Railroad or Public Utilities Commission assigned number, posted at or assigned to the highway-rail crossing.
ttstn	100-105	A/N	6	Standard Point Location Code (SPLC) for the nearest timetable station of the company maintaining the crossing. SPLC's are assigned to transportation points by the Transportation Data Coordinating Committee, a joint operation of the National Motor Freight Traffic Association and the Association of American Railroads.
branch	106-120	A/N	15	Line or branch name used by the railroad to describe this segment of track.
milepost	121-126	A/N	6	Railroad milepost number at which the highway-rail crossing is located. Distance along the railroad line from a standard reference point, which is, however, not specified in the file.
mapref	127-136	A/N	10	County map identification or reference number used to locate the highway-rail crossing. County map identification code, provided by the highway agency to locate the highway-rail crossing within the county.
typexing	137	A/N	1	Numeric code specifying the type category of the highway-rail crossing. 1 = Pedestrian 2 = Private Vehicle 3 = Public Vehicle
posxing	138	A/N	1	Numeric code specifying the position category of the highway-rail crossing. 1 = At Grade 2 = Railroad under 3 = Railroad over

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prvcat	139	A/N	1	Numeric code indicating the usage category of a private vehicle highway-rail crossing. 1 = Farm 2 = Residential 3 = Recreational 4 = Industrial 5 = Commercial
prvind	140	A/N	1	Indicator of whether or not any warning devices are present at a private vehicle crossing. Valid values for field are coded. 1 = Signs 2 = Signals 3 = No signs or signals 4 = Both signs and signals
prvsign	141-155	A/N	15	Description of any warning device present at a private vehicle crossing.
init	156	A/N	1	Code to designate what agency has initiated the update. Generated during entry of the record into the file. For original inventory, the value is "4". 1 = Railroad 2 = State 3 = DOT 4 = Original
batch	157-162	A/N	6	Code field which gives the year, Julian day, and a batch number during original inventory. Identification number of batches of updates during update phase. Determined by the batch identification system used.
usercd	163	A/N	1	This field is not currently used.
update	164-165	A/N	2	Coded date of update. Code for month and year of update.
link	166-170	A/N	5	This will contain the link identification code (LIC) from the rail network model for the line on which the crossing lies. LIC id is a five digit code incorporating the alphabetical abbreviation of the owning railroad and a sequence number (e.g., "BN017" would be the 17 th segment of the Burlington Northern Railroad).
daythru	171-172	N	2	Normal, or average, number of daily through train movements over this grade crossing between 6AM and 6PM.
dayswt	173-174	N	2	Normal, or average, number of daily local, industrial, or switch engine train movements over this grade crossing between 6AM and 6PM.
nghtthru	175-176	N	2	Normal, or average, number of daily through train movements over this grade crossing between 6PM and 6AM.
nghtswt	177-178	N	2	Normal, or average, number of daily local, industrial, or switch engine train movements using this grade crossing between 6PM and 6AM.
lt1mov	179	A/N	1	Code to distinguish crossings with very low train traffic. Valid values are: 0 = At least one train per day 1 = Less than one train per day
maxtspd	180-182	N	3	Maximum timetable speed at the highway-rail crossing, in miles per hour.
minspd	183-185	N	3	Minimum typical speed of trains at the highway-rail crossing.
maxspd	186-188	N	3	Maximum typical speed of trains at the highway-rail crossing.
maintrk	189	N	1	Number of main tracks at the highway-rail crossing. A track is considered to be a main track if through trains operate on the track. This field reflects the number of main tracks of all railroads at the crossing.
othrtrk	190-191	N	2	Number of tracks other than main tracks at the highway-rail crossing. This field reflects the number of tracks of all railroads at the crossing which do not carry through trains.
othrdes	192-201	A/N	10	Description of tracks considered to be other than main tracks at the highway-rail crossing. Track is considered to be "other" track if no through trains operate on it. The description is necessarily only a brief label.
sepind	202	A/N	1	Indicates whether another railroad operates a separate track over this highway-rail crossing. 1 = Yes 2 = No

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sepr	203-218	A/N	16	Codes for the railroads operating separate tracks over this highway-rail crossing. Codes should appear in 4-character sub-fields. No code should repeat within the field. For valid RR codes see the FRA Auxiliary Tables.
sameind	219	A/N	1	Indicates whether another railroad operates on the operating railroad's track at the crossing. 1 = Yes 2 = No
samerr	220-235	A/N	16	Codes for other railroads operating on the operating railroad's tracks at this highway-rail crossing. Codes should appear in 4-character sub-fields. No code should repeat within the field. For valid RR codes see the FRA Auxiliary Tables.
wdcode	236	A/N	1	Code for the highest level of warning device at the crossing. Lower level devices may also be present. Valid values are: 8 = Gates 7 = Flashing lights 6 = Wigwags, bells, or highway traffic signals 5 = Non-train activated special protection 4 = Crossbucks 3 = Stop signs 2 = Other signs 1 = No sign or signal
xbuckrf	237	N	1	Number of masts with reflectorized cross-bucks at the highway-rail crossing. Two or more cross-bucks mounted on a single mast are counted as one. If the crossing has a train activated device, the cross-bucks mounted on that device are not counted.
xbucknrf	238	N	1	Number of masts with non-reflectorized cross-bucks at the highway-rail crossing. Two or more cross-bucks mounted on a single mast are counted as one. If the crossing has a train activated device, the cross-bucks mounted on that device are not counted.
stopstd	239	N	1	Number of standard highway stop signs at the highway-rail crossing. Standard highway stop signs are red with white letters and have eight sides.
stopoth	240	N	1	Number of stop signs not classified as standard stop signs at the highway-rail crossing. A standard highway stop sign is red with white letters and has eight sides. All other stop signs are classified as "other stop signs".
othsgn1	241	N	1	Number of signs of the first type other than cross-bucks or stop signs at the highway-rail crossing. This field gives the number of passive signs of any one type not otherwise provided for on the inventory form.
othdes1	242-251	A/N	10	Description of the first type of sign other than cross-bucks or stop signs at the highway-rail crossing. Indicates presence of a sign other than cross-bucks at the crossing.
othsgn2	252	N	1	Number of signs of the second type other than cross-bucks or stop signs at the highway-rail crossing. This field gives the number of passive signs of any type not otherwise provided for on the inventory form and not covered in field OTHSGN1.
othdes2	253-262	A/N	10	Description of the second type of sign other than cross-bucks or stop signs at the highway-rail crossing. Indicates presence of a sign other than cross-bucks at the crossing.
gaterw	263	N	1	Number of gates with red and white reflectorized arms at the highway-rail crossing. "9" represents 9 or more.
gateoth	264	N	1	Number of all gates other than red and white reflectorized arms at the highway-rail crossing. "9" represents 9 or more.
flashov	265	N	1	Number of cantilevered flashing lights over traffic lanes of the roadway approaching the highway-rail crossing. "9" represents 9 or more.
flashnov	266	N	1	Number of cantilevered flashing lights not over traffic lanes of the roadway approaching the highway-rail crossing. Cantilevered flashers either not reaching the roadway or over only parking lanes, turnout lanes, or shoulders are classified as not over traffic lane. "9" represents 9 or more.
flashmas	267	N	1	Number of mast mounted flashing lights at the highway-rail crossing. All flashers on a single mast are counted as one flasher. "9" represents 9 or more.

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flashoth	268	N	1	Number of flashing lights at the highway-rail crossing not conforming to the Manual on Uniform Traffic Control Devices published by FHWA. Indicates the presence of flashing lights at a crossing. "9" represents 9 or more.
flashdes	269-277	A/N	9	Description of flashing lights at the highway-rail crossing not in accordance with the Manual on Uniform Traffic Control Devices published by FHWA.
hwysgnl	278	N	1	Number of highway traffic signals at the highway-rail crossing. Applies only to train activated red-amber-green signals that control street traffic over the highway-rail crossing. "9" represents 9 or more.
wigwags	279	N	1	Number of wigwags at the highway-rail crossing. All wigwags present at highway-rail crossing are counted separately. "9" represents 9 or more.
bells	280	N	1	Number of bells at the highway-rail crossing. All bells present at the crossing are counted whether alone or in conjunction with other warning devices. "9" represents 9 or more.
specpro	281-300	A/N	20	Description of non-train activated special warning device at the highway-rail crossing. Examples are manually operated signals on gates, train crew flagging the crossing, watchmen, and floodlights. The number of hours in effect daily should be recorded for watchmen and manually operated gates. For floodlights, the number of masts with lights should be recorded. Only floodlighting which is of a type distinctive in volume, distribution, or color from ordinary street or other lighting should be recorded.
nosigns	301	A/N	1	A flag to indicate whether any signs or signals are present at the highway-rail crossing. 0 = At least one sign or signal 1 = No signs or signals
compower	302	A/N	1	Is commercial electric power available within 500 feet of the crossing? 1 = Yes 2 = No
sgnleqp	303	A/N	1	Is track equipped with signals to control train operation? 1 = Yes 2 = No
spsel	304	A/N	1	A flag to indicate whether the crossing signal is equipped with a device to provide a uniform warning. 1 = Yes 2 = No 3 = Not Applicable
develtyp	305	A/N	1	Indicates the predominant type of development in the vicinity of the crossing. Five broad categories are provided. The instructions for filling out the inventory form state that more than one category may be indicated. 1 = Open space 2 = Residential 3 = Commercial 4 = Industrial 5 = Institutional
hwypved	306	A/N	1	A flag to indicate whether or not the highway at the highway-rail crossing is paved. 1 = Yes 2 = No
downst	307	A/N	1	A flag to indicate whether the highway-rail crossing involves track running parallel to and within a street or highway. 1 = Yes 2 = No
pavemrk	308	A/N	1	Indicates the presence of highway pavement markings at the highway-rail crossing. Pavement markings are recorded if they are as prescribed or generally similar to those contained in the highway traffic manual. If both stop lines and railroad crossing symbols are present, both are recorded. 1 = stop lines 3 = no markings 2 = railroad crossing symbol 4 = stop lines and railroad crossing symbols
hwynear	309	A/N	1	A flag to indicate whether the street or highway at the highway-rail crossing is intersected by another street or highway, and if so, the distance from the crossing where the intersection exists. 1 = less than 75 feet 2 = 75 to 150 feet 3 = 151 to 200 feet 4 = Over 200 feet blank = No or Not Applicable

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humpsign	351	A/N	1	A flag indicating whether or not signs are present at a high profile hump surface. 1 = Yes 2 = No Blank = Unknown
hscorrid	352-353	A/N	2	High speed rail corridor identifying code. Used to identify the "Section 1010" high-speed corridor on which the crossing is located, if it is located on such a corridor.
dotacpd	354-361	N	8	DOT Accident Prediction Value - annual input. Provided by FRA Office of Safety from programs run by that office.
acpddate	362-369	A/N	8	The effective date for the DOT Accident Prediction Value.
accnt1	370-371	N	2	Accident History. For any crossing with an accident history within the most recent five years, would contain the count of the number of accidents occurring at the crossing during the five year period.
accnt2	372-373	N	2	Accident History.
accnt3	374-375	N	2	Accident History.
accnt4	376-377	N	2	Accident History.
accnt5	378-379	N	2	Accident History.
histdate	380-387	A/N	8	This field will indicate when the fields ACCCNT1 through ACCCNT5 were generated. Generated by the system.
schlbus	388-390	N	3	Daily average number of scheduled school buses passing over the crossing on a school day. Back and forth counts as 2.
whistban	391	A/N	1	A flag indicating whether or not a whistle ban is in effect for the crossing. 0 = No 1 = 24 hour 2 = Partial 9 = Unknown
passcd	392	A/N	1	Types of passenger trains using this crossing. Blank = N/A A = AMTRAK operates over crossings. B = AMTRAK and other passenger train operates over crossing C = Other passenger train operates over crossing, including seasonal.
passcnt	393-395	N	3	Number of passenger trains using this crossing, per day
rrmain	396-399	A/N	4	This field will contain the code for the parent railroad of the Railroad Operating Company. Must be a valid railroad code. See FRA Auxiliary Tables.
xingownr	400-403	A/N	4	This field will contain the code for the owner of the crossing. Must be a valid railroad code. See FRA Auxiliary Tables.
source	404	A/N	1	This field will indicate the source of the last update. H = Other hard copy M = Other magnetic media T = Magnetic tape I = Inventory form P = Mass-update printout X = GX
updatdat	405-412	A/N	8	This field will contain the date that the last update to the record was posted. Must be valid date.
longbdat	413-420	A/N	8	This field will contain the same date as the field EFFDATE, in this record, except that the year will be four characters in this data element. Must be a valid date.
longedat	421-428	A/N	8	This field will contain the same date as the field EDATE, in this record, except that the year will be four characters in this data element. Must be a valid date.
fourquad	429	A/N	1	This field will indicate whether or not four-quadrant gates are present at the crossing. 1 = Yes 2 = No Blank = Unknown

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FIELD NAME	FILE POSITION	FIELD TYPE	FIELD LENGTH	DEFINITION
twoquad	430	A/N	1	This field will indicate whether or not two-quadrant gates with median barriers are present at the crossing. 1 = Yes 2 = No Blank = Unknown
openpub	431	A/N	1	This field will indicate whether or not this private crossing is open to public access. 1 = Yes 2 = No Blank = Unknown
rrnarr1	432-451	A/N	20	This field will contain whatever the railroad desires to enter.
rrnarr2	452-471	A/N	20	This field will contain whatever the railroad desires to enter.
rrnarr3	472-491	A/N	20	This field will contain whatever the railroad desires to enter.
rrnarr4	492-511	A/N	20	This field will contain whatever the railroad desires to enter.
stnarr1	512-531	A/N	20	This field will contain whatever the State desires to enter.
stnarr2	532-551	A/N	20	This field will contain whatever the State desires to enter.
stnarr3	552-571	A/N	20	This field will contain whatever the State desires to enter.
stnarr4	572-591	A/N	20	This field will contain whatever the State desires to enter.
aadtyear	592-595	A/N	4	This field will contain the year of the last AADT update. Generated by the system during the update process.
aadtcalc	596	A/N	1	This field will identify how the last AADT update was calculated. 1 = Actual 2 = Estimated Blank = Neither
traindat	597-600	A/N	4	This field will contain the year of the last trains update.
traincal	601	A/N	1	This field will identify how the last trains update was calculated. 1 = Actual 2 = Estimated Blank = Neither
reserve1	602	A/N	1	Reserved for the future use.
reserve2	603-605	A/N	3	Reserved for the future use.
reserve3	606-608	A/N	3	Reserved for the future use.
reserve4	609-611	A/N	3	Reserved for the future use.
reserve5	612-614	A/N	3	Reserved for the future use.
dotcaspd	615-622	N	8	DOT Predicted Casualty Rate - annual input. Provided by FRA Office of Safety from programs run by that office.
dotfatpd	623-630	N	8	DOT Predicted Fatality Rate - annual input. Provided by FRA Office of Safety from programs run by that office.
funcat	631	A/N	1	This field will contain the Functional Category (to be determined).
rrcont	632-641	A/N	10	This field will contain the telephone number of the railroad contact associated with the crossing.
hwycont	642-651	A/N	10	This field will contain the telephone number of the State highway contact associated with the crossing.
polcont	652-661	A/N	10	This field will contain the telephone number of the Police contact associated with the crossing.
narr	662-761	A/N	100	Free form comments.