

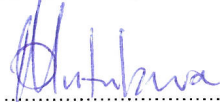
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Level 3

Maintaining Track Assets at Level Crossings

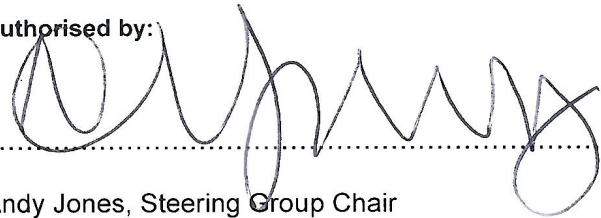
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User information

This Network Rail standard contains colour-coding according to the following Red–Amber–Green classification.

Red requirements – *No deviations, could stop the railway*

- **Red requirements shall** always be complied with and achieved.
- Red requirements shall be presented in a red box **with the word “shall” or expressed as a direct instruction**.
- Accountability for the efficacy of red requirements lies with the Professional Head/Standard Owner.
- Red requirements are monitored for compliance.
- Corrective actions shall be enforced if deviations are discovered through functional checks (e.g. engineering verification visits, audit or Operations Self-Assurance).

Amber requirements – *Controlled deviations, approved risk analysis and mitigation*

- **Amber requirements shall** be complied with unless deviation has been approved in advance.
- Amber requirements shall be presented with an amber sidebar **and with the word “shall” or expressed as a direct instruction**.
- Accountability for the efficacy of these requirements lies with the Professional Head/Standard Owner, or their nominated Delegated Authority.
- Amber requirements are monitored for compliance.
- Deviations **may** be permitted. Deviations are approved by the Standard Owner or through existing Delegated Authority arrangements.
- Corrective actions shall be enforced if **non-approved** deviations are discovered through functional checks (e.g. engineering verification visits, audit or Operations Self-Assurance).

Green – *Guidance*

- Guidance is based on good practice. Guidance represents supporting information to help achieve **Red** and **Amber** requirements.
- Guidance shall be presented with a dotted green sidebar **and with the word “should” (usually in notes) or as a direct instruction**.
- Guidance is **not mandatory** and is not monitored for compliance.
- Alternative solutions may be used. Alternative solutions do not need to be formally approved.
- Decisions made by a competent person to use alternative solutions should be backed up by appropriate evidence or documentation.

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Issue record

Issue	Date	Comments
1	June 2012	New Standard

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 01 September 2012.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 3 (Option Selection) to continue to comply with the issue of any relevant Network Rail standards current when GRIP Stage 3 was completed and not to comply with requirements contained herein, unless stipulated otherwise in the scope of this standard.

Reference documentation

NR/L2/TRK/001 – Inspection and Maintenance of Permanent Way

NR/L3/TRK/1011 – Management of Permanent Way

NR/L2/TRK/2102 – Design and Construction of Track

NR/L2/TRK/2049 – Track Design Handbook

NR/L2/TRK/4040 – Level Crossing Surface Systems

NR/L2/TRK/5100 – Management of Fencing and Other Boundary Measures

NR/L2/TRK/5201 – Management of Lineside Vegetation

NR/L2/SIG/19608 – Level Crossing Infrastructure: Inspection and Maintenance

NR/L2/SIG/30017 – Requirements for Level Crossings

NR/L2/SIG/30015 – Specification for Station, Footpath, Bridleway and User Worked Crossings

NR/L3/SIG/MG0081 – Inspection of Level Crossings Including Work Identification and Prioritisation

NR/L2/OPS/100 – Provision, Risk Assessment and Review of Level Crossings

NR/L3/MTC/PL0175 – Infrastructure Maintenance Planning Handbook

NR/L2/RVE/0007 – Specification for on and Off Tracking of Road Rail Vehicles

NR/SP/ELP/27021 – Electric Track Equipment Layout Design for D.C. Electrified Lines

NR/GN/ELP/27088 – Layout of Overhead Line Equipment

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1 Purpose

This standard specifies the requirements for managing the installation, inspection, maintenance of track assets at operational level crossing infrastructure. It demonstrates that level crossing systems are compliant with legislation, reliable and safe.

2 Scope

This Network Rail standard is applicable to level crossings of the following types, including those that are subject to temporary closure:

- Automatic Half Barrier Crossings
- Automatic Full Barrier Crossing with Obstacle Detection
- Automatic Half Barrier Crossings Locally Monitored
- Automatic Open Crossings Locally Monitored (including OCFLs)
- Automatic Open Crossings Remotely Monitored
- Miniature Stop/ Warning Lights
- Manually Controlled Barriers (including CCTV and OCB)
- Traincrew Operated Crossings
- Manned Gated Level Crossings
- Manually Controlled Barrier – Obstacle Detection
- Open Crossings
- Power Operated Gate Opening Crossings
- User Worked Crossings
- Footpath and Bridleway Crossings
- Station Barrow Crossings
- Station Foot Crossings
- Sleeping Dog Crossings
- Mothballed Crossings.

NOTE This document is NOT applicable to Inspection and Maintenance of Road Rail Access Points (RRAPs), and Track Access Points (TAPs) as they are not level crossings.

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3 Roles and responsibilities

RACI DETAILS	KEY CONTROL ACTIVITY	Resources										
		Infrastructure Maintenance Engineer	Track Maintenance Engineer	Section Manager (Off Track)	Off Track Inspector	Operations Risk Control Coordinator	Infrastructure Fault Control	Signaller	Maintenance Protection Coordinator	Section Planner	Infrastructure Maintenance Services Manager	Route Asset Manager (Track)
Process Task												
6.1	-	-	R	R	R	-	-	-	-	-	-	-
6.2	-	-	-	C	C	-	-	-	-	A,R	-	-
6.4.1	X	-	R	I	-	A,R	-	-	-	-	-	-
6.4.2	-	-	I	A,R	-	-	-	-	-	-	-	-
6.4.3	-	-	A,R	C	-	-	-	-	-	-	R	-
6.4.4	-	-	I	C	-	-	-	-	-	A,R	-	-
6.4.5	-	-	I	I	-	-	-	-	-	A,R	-	-
6.4.6	-	-	R	A	-	-	-	-	-	-	-	-
6.4.7	-	-	A,R	C	-	R	-	-	-	-	-	-
6.4.8	-	-	I	A,R	-	R	-	-	-	-	-	-
6.4.9	X	I	R	A,R	-	-	-	-	-	-	-	-
6.4.10	-	-	C	A,R	-	-	-	-	-	-	-	-
6.4.11	-	-	-	A,R	-	-	-	-	-	R	-	-
6.4.12	X	-	-	A,R	R	-	-	-	-	-	-	-
6.4.13	-	-	-	C	A,R	-	-	-	-	-	-	-
6.4.14	-	-	I	C	A,R	-	C	C	-	-	-	-
6.4.15	-	-	-	-	A,R	-	-	-	-	-	-	-
6.4.16	-	-	I	A	R	-	C	C	-	-	-	-
6.4.17	-	-	I	A	R	-	-	-	-	-	-	-
6.4.18	-	-	I	A	R	-	-	-	-	-	-	-
6.4.19	-	-	I	A,C	R	-	-	-	-	-	-	-
6.4.20	X	-	A,R	R	-	-	-	-	-	C	-	-
6.4.21	-	-	A,R	R	-	-	-	-	-	-	-	-
6.4.22	-	-	A,R	-	-	C	-	-	-	-	-	-
6.4.23	-	I	I	I	-	A,R	-	-	-	-	-	-
6.4.24	-	-	-	A,R	-	-	-	-	-	-	-	-
6.4.25	-	-	-	A,R	-	-	-	-	C	-	-	-
6.4.26	-	-	I	A,R	R	-	-	-	-	C	-	-
6.4.27	-	-	-	A,R	-	-	-	-	-	R	-	-
6.4.28	-	-	-	A,R	-	-	-	-	-	-	-	-
6.5	-	-	I	R	A,R	-	-	-	-	-	-	-
6.6.1	-	-	-	I	A,R	-	-	-	-	-	-	-
6.6.2	-	-	-	I	A,R	-	-	-	-	-	-	-
6.6.3	-	-	-	I	A,R	-	-	-	-	-	-	-
6.7	-	-	-	A,R	R	-	C	C	-	-	-	-
6.7.1	-	-	A,R	R	-	-	-	-	-	-	-	-
6.8	-	-	A,R	C	-	-	-	-	-	-	-	-
6.9	-	-	A,R	R	-	-	-	-	-	-	-	-
6.9.1	-	-	A,R	C	-	-	-	-	-	-	-	-
6.9.2	-	-	A,R	C	-	-	-	-	-	-	-	C
6.9.3	-	-	A,R	R	-	-	-	-	-	-	-	-
6.9.4	-	-	-	-	-	A,R	-	-	-	-	-	-

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6.9.6	-	-	C	C	-	-	-	-	-	R	-	-
6.9.7.1	-	-	-	A,R	R	-	-	-	-	-	-	-
6.9.7.2	-	-	R	C	-	-	-	-	-	-	-	-
6.9.8	-	-	A,R	R	-	C	-	-	-	-	-	I
6.9.8.1	-	-	A,R	C	-	R	-	-	-	-	-	-
6.9.8.2	-	-	A,R	C	-	R	-	-	-	-	-	-
end RACI												

Table 1 – RACI

4 Definitions

For the purpose of this standard, the following terms and definitions apply.

ABCL	Automatic Barrier Crossing, Locally Monitored
AFBC-OD with TPWS	Automatic Full Barrier Crossing with Obstacle Detection and Train Protection Warning System
AHBC	Automatic Half-Barrier Crossing
ALCRM	Operations All Level Crossing Risk Model
AOCL	Automatic Open Crossing, Locally Monitored
AOCR	Automatic Open Crossing, Remotely Monitored
BW	Bridleway Crossing
CCTV	Closed Circuit Television
DCI	Driver's Crossing Indicator
ELLIPSE	Maintenance Scheduling System (formerly MIMS)
FP	Footpath Crossing
HAE	Highway Authority Engineer, this includes Local authority engineer
IFC	Infrastructure Fault Control
IMDM	Infrastructure Maintenance Delivery Manager
IMSM	Infrastructure Maintenance Services Manager
IME	Infrastructure Maintenance Engineer
MCB	Manually Controlled Barriers
MCB-CCTV	Manually Controlled Barriers with Closed Circuit Television
MCB-OD	Manually Controlled Barriers with Obstacle Detection
MCB-R	Remote Manually Controlled Barriers in excess of 50M from the Control Point
MG	Manned Crossing with Gates
MOM	Mobile Operations Manager
MPC	Maintenance Protection Coordinator
MSTs	Maintenance Scheduled Tasks

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NR	Network Rail
OC	Open Crossing without road warning lights
OTI	Off Track Inspector
ORCC	Operations Risk Control Coordinator
RAM(T)	Route Asset Manager (Track)
RotR	Rules of the Route
SM	Section Manager
SM(OT)	Section Manager Off Track
SP	Section Planner
STME	Signal and Telecoms Maintenance Engineer
TME	Track Maintenance Engineer
UWC	User Worked Crossing
WAIF	Work Arising Inspection Form
Acceptable condition	An asset in acceptable condition is fit for purpose and is unlikely to become a defect prior to the next inspection.
Accommodation crossing	A field to field crossing essentially for use of a farmer.
Active (visible or audible) warning	A device which warns users of the imminent arrival of a train. Such devices can be either visible or audible and can be used in combination.
Actual daily road vehicle user	The number of road vehicles passing between 06.00 and 24.00 averaged over a 9-day period. The value recorded in ALCRM is acceptable if a full 9 day census is not available.
Approaches (to a crossing)	The road, bridleway or path leading up to a crossing. For the purposes of this document, the approaches, measured from the nearest running rail, extend for 30 m on heavily used vehicular crossings and 20 m on other crossings.
Authorised user	A person having the legal or contractual right to use a particular level crossing.
Automatic control system	A system which automatically activates the protective equipment at a level crossing on the approach of a train.
Automatic crossing	A level crossing where the protective equipment, for example, barriers and active warnings, is automatically activated by the approaching train. The term excludes a manually controlled crossing where automatic lowering and/or automatic raising of the barriers is provided.
Automatic lowering	The lowering of the barriers at a crossing initiated by a train.
Automatic raising	The raising of the barriers at a crossing initiated by the

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	passage of a train clear of the crossing
Basic test	A simple check with a basic test gauge to determine compliance to vertical profiles within this document.
Bridleway crossing	A level crossing for pedestrians, cyclists and horses.
Cattle-cum-trespass guard	A device provided adjacent to the level crossing surface designed to deter animals from straying, and pedestrians from trespassing, onto the railway.
Check	Visually inspect for alignment, obstructions, breakages, decay and obvious damage.
Competence	Endorsement by line manager of a person's authority to work on a specific asset.
Control point	The location from which one or more controlled crossings are operated.
Crossing	Used in level crossing documentation to mean 'level crossing', where the continued use of 'level crossing' becomes repetitive and laboured.
Crossing length	The distance along the road or path between the barriers, decision points and stop lines on either side of the railway.
Crossing speed	The permissible train speed applying between a speed restriction sign and a locally monitored level crossing.
Crossing surface	An installation providing a continuation of the road surface to enable it to be carried across the railway at the same elevation. This term includes all associated support and fixing systems.
Crossing width	The width of the road or path crossing the railway.
Decision point	The point at which a level crossing user makes a decision to cross or wait.
Footpath crossing	A public or private pedestrian level crossing.
Grounding	The effect of any part of the road vehicle coming into contact with the crossing surface.
Hog	A measure of the crossing surface vertical profile over specified wheel base lengths.
Inspect	Visual examination of level crossing to detect hidden failures and deterioration of the assets. Includes non-intrusive "first aid" repairs (e.g. cleaning signs).
Left-hand side (of the road)	The left-hand side of the road or carriageway as it would appear to a person approaching the crossing along that road or carriageway.
Level crossing	An intersection at the same elevation of a road, footpath or bridleway and one or more rail tracks.

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Level Crossing Ground Plan	Scaled and dimensioned drawing(s) showing the position of all equipment and associated features at a level crossing that should represent the details indicated in the Level Crossing Order. In case of omission / error / confusion, the Level Crossing Order is the overriding document.
Level Crossing Order	A legal document made by, or on behalf of, the Secretary of State for Transport under the Level Crossings Act 1983 which references the operation of the crossing. It also defines the position and size of certain component parts, including road markings and signage, and the responsibilities of Network Rail and the appropriate Highways Authority. For the purposes of this Specification, this includes Letters of Consent authorising level crossings. This may also include 'Direction Orders' which have been issued to mandate certain positions for level crossing gates.
Level survey	A detailed level survey using approved surveying techniques.
Maintenance	Technical activities defined in engineering standards to check that level crossings continue to operate safely and reliably.
Mothballed	This type of crossing is one that is on a line that is 'out of use' but not legally closed, (i.e. no network change applied for). Such an arrangement does not absolve Network Rail, from liability for maintaining level crossings, on all mothballed lines in particular those used by members of the public in a condition fit for purpose. Crossings on mothballed lines should be capable of being brought back into use with minimal change and shall meet all of their original legal requirements as if they were still open and should be inspected and tested as such. Gates, crossing fencing and surface systems will be required to be inspected at the frequency mandated for active crossings whereas other component parts such as signage, warning lights, telephones and lifting barriers shall only be inspected at a reduced frequency.
Off Track Inspector	Specialised inspectors, who check level crossings in accordance with this standard and undertake certain repairs. Shall be referred to as the 'Inspector' throughout this standard.
Near Side (N)	The left hand side of the carriageway when viewed in the direction of road traffic.
Non running lines	Lines without a through route e.g. sidings, freight yards and depots.
Occupational crossing	Where a private road crosses the railway for example leading to a house or farm.
Off Side (O)	The right hand side of the carriageway when viewed in the direction of road traffic.

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Open crossing	A level crossing that has no barriers, gates or road traffic light signals and which is protected only by road traffic signs.
Outside party	Any asset owner other than Network Rail.
Repairs	The Inspector may carry out minor vegetation clearance, timber/ballast deck repairs, and sign changing. NOT repairs to electrical devices such as warning lights, barrier machines, audible alarms etc.
SC Defect	An immediate rectification defect, which if not immediately repaired has the potential to cause a serious incident to road, rail or pedestrian users.
Skew crossings	Acute skew crossings - the crossing angle measured in an anticlockwise direction from the road to the running rail (when facing direction of normal road traffic) is less than a 90degrees. Obtuse skew crossings - the crossing angle measured in an anticlockwise direction from the road to the running rail is greater than 90degrees.
Sleeping Dog crossing	A crossing generally of the UWC, FP, or Bridleway type which is still legally open and the right to cross the railway still legally exists but where no evidence exists that this right to cross is being exercised, or there is little or no trace of the crossing infrastructure.
Temporarily closed	Any crossing that has been temporarily closed for crossing the railway because of extended engineering work, adjacent developments etc., but where we intend to re-open the crossing.
Traffic moment	The number of road vehicles using the crossing multiplied by the number of trains passing in a given period.
User	A person who uses a level crossing. For the purposes of this document the term includes the authorised user and invitees of the authorised user.
User Worked crossing	A level crossing, where the user operates the crossing gates or barriers themselves.
Vegetation growing period	When growth on bushes, trees, hedgerows, grasses, reeds etc is likely to begin to thicken and affect visibility if not controlled.
Y Side	Normally, the side of the crossing adjacent to the UP line.
Z Side	Normally, the side of the crossing adjacent to the DOWN line.

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5 General Statutory Requirements

5.1 Level Crossing Order

A Level Crossing Order is a legal document made by, or on behalf of, the Secretary of State for Transport under the Level Crossings Act 1983, as amended by the Level Crossings Regulations 1997 and The Road Safety Act 2006.

The Level Crossing Order specifies how the crossing is to be operated and the protective equipment, which includes barriers, traffic signs, signals and road marking, and the responsibilities of Network Rail and the appropriate Highways Authority.

Non-compliance with the requirements of the Level Crossing Order is a criminal offence.

The location of the public right of way, that is Footpaths and Bridleways, is held on a 'Definitive Map' owned by the local Highway Authority. A Title Deed is the legal document in use for User Worked Level Crossing (Non Public).

5.2 Ground Plan

A Level Crossing Ground Plan drawing shows the position of all equipment and associated features at a Level Crossing and complies with the requirements of the Level Crossing Order.

Level Crossing Ground Plans and Level Crossing Orders generally apply to crossings on roads where the public has access.

Where a Ground Plan does NOT exist for a crossing collate photographs, 360degrees – approaches and either side, at least four in total, or create a controlled sketch, which is then endorsed as correct for the installation by the ORCCs.

[Clause 6 NR/L2/SIG/19608 TABLE 2](#), Level Crossing Features and References, provides guidance on which features are to be included on the Ground Plan and/or Level Crossing Order.

In cases of omission or error the Level Crossing Order takes precedence over the Level Crossing Ground Plan.

5.3 Walkway Requirements

Make appropriate provision for pedestrians, taking account of the number and frequency of pedestrians and trains, at all public vehicular level crossings.

Where a footway is provided on either or both sides of the approach road, a footway or footways of adequate width shall continue over the crossing. There shall be space, taking into account the volume and nature of the users, for pedestrians to pass each other without the need to use part of the carriageway reserved for road vehicles. Allowance shall be made for the needs of those with pushchairs and in wheelchairs.

Any footway shall be made up to the level of the carriageway and maintained in an even condition. Provide longitudinal road markings along each edge of any footway, to delineate the required width and define the safe route for pedestrians walking over

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the crossing. Also provide a safe place for pedestrians to stand when crossings are closed to road traffic on any footways approaching an automatic or open crossing.

All walkways are to be compliant with [NR/L2/SIG/30015](#).

5.4 Vegetation

Sighting of trains from the decision point shall not be compromised by vegetation. When installing equipment, take note of any vegetation that could affect the safe operation of the crossing or compromise sighting in the future, remove or report any such vegetation.

Scratching, stinging or rash making plants are not allowed to grow within one metre either side of a stile or footpath gate. This area shall be surrounded with an appropriate method of fencing.

Where the hedges either side are overgrown from an adjoining land owner, consult the land owner prior to removal.

Vegetation is to comply with [NR/L2/TRK/5201](#).

5.5 Fencing

Position fencing at the crossing as per the level crossing ground plan or controlled sketches / photographic record.

Fencing shall be compliant with [NR/L2/TRK/5100](#).

5.6 Cattle-cum-trespass Guards

Provide cattle-cum-trespass guards where indicated on ground plans or controlled sketches / photographic record that have been endorsed as correct by the ORCC.

Cattle-cum-trespass guards shall:

- Be adjacent to the footway at the edge of and level with the surface of the decking system
- Extend the full length of the crossing between the boundary fences with a fence extended from the boundary down the full length of each guard
- Be a minimum of 2.6 metres step over distance from any edge of the crossing surface
- If constructed of wood be of triangular rails base and vertical sides 115mm, with a Maximum of 35mm clear spacing between each rail
- If installed in DC conductor rail areas are to be constructed of a non-conductive material and adhere to [NR/SP/ELP/27021](#).

5.7 Road Closures

For guidance on Network Rail procedure refer to 'New Roads and Street Works Act Procedure', available from the National Signalling and Level Crossings Programme Team.

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6 Inspection

6.1 Inspection – Holistic View

Inspect the general arrangement of the crossing and check it is still to basic design as well as compliant to the Ground Plan or controlled sketches. Check if anything is missing with respect to the Ground Plan and surface system design.

Consider the relationship between the road and railway and the effects the location will have on the surface system. Have a diagram or cross section of the crossing location.

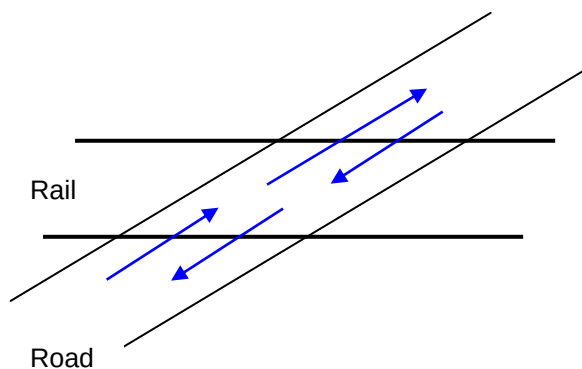


Figure 1 – Highly skewed crossing

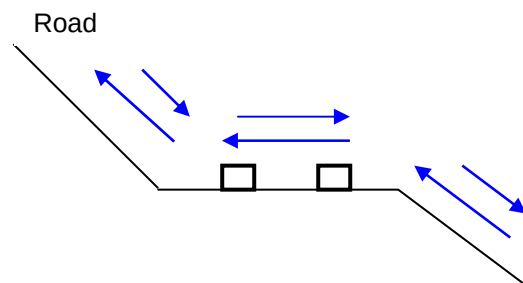


Figure 2 – Road/Rail Profile

Is the track providing a stable support?

Consider the effects of the road/railway profile:

- Highly skewed crossings experience increased dynamic loading, both vertical and lateral, which leads to panel fatigue and failure
- Look for signs of the crossing moving apart or shifting laterally
- Cumulative effects of panels affecting joint location on sleepers, panels likely to be staggered at skew crossings resulting in weakening of the system.
- Crossing on a tight radius, i.e. less than 400m - affects the profile of the level crossing as a result of the cant of the track.
- Topography/geology, e.g. hillside, valley, cutting, embankment, stable formation, water effects, effects on track stability
- Grounding (Nairn's) - risk of train striking road vehicle
- Look for signs of grounding on approaches and over crossing surface.

Consider change in use of the crossing:

- Increased traffic patterns or loading.

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Confirm the design of the crossing is correct:

- Performance history
- Surface system suitable for traffic type, volume and location.

Key issues are:

- The relationship between the road and railway, and the respective geometry
- Any effects due to the crossings location/environment
- Stability of the track system
- The surface systems ability to withstand the above given its design and condition.

6.2 Safe System of Work

Set up a safe system of work to comply with the Rule Book (GE/RT8000).

The safe system of work should extend to addressing the hazards associated with road traffic.

As a minimum this safe system of work should consider:

- Protection when working in the highway.
- The parking of any road vehicles, making sure that they are clear of the crossing; not parked in any lay by provided for large or slow vehicles; not parked in a position where it will obstruct the view of the Road Traffic Lights to oncoming users; not parked where it will constitute an offence i.e. in areas where there are double white lines in the centre of the carriageway.
- The method by which the highway is crossed. Where possible use pedestrian crossings (refer to the [Highway Code](#)).
- The method of walking along the highway; where possible, walk on the right hand side of a two-way highway facing oncoming traffic or use the safest alternative verge or footpath on a one-way highway.
- If part of a group, walk in single file.

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6.3 Inspection Interval

Description	Maximum Inspection Interval
Automatic Half Barrier Crossings	7 weeks
Automatic Half Barrier Crossings Locally Monitored	7 weeks
Automatic Full Barrier Crossings	7 weeks
Automatic Open Crossings Locally Monitored	7 weeks
Automatic Open Crossings Remotely Monitored	7 weeks
Miniature Stop/Warning Lights	7 weeks
Manually Controlled Barriers (inc CCTV and OCB)	3 months
Traincrew Operated Crossings	3 months
Manned Gated Level Crossings	3 months
Station, Barrow or foot crossings with White Lights	6 months
Open crossings	6 months
User Worked Crossings	6 months
Footpath and Bridleway Crossings	6 months
Station, Barrow or foot crossings without White Lights	6 months
Sleeping Dog Crossing	6 months
Crossings on Mothballed lines	In accordance with specific crossing type
Vertical Profiles on Level Crossings	Annually

Table 2 – Maximum Inspection Interval from [NR/L2/SIG/19608](#)

6.4 Inspection Process

NOTE Refer to Appendix A for Inspection Flowchart.

6.4.1 Create Inspection Register

The Operations Risk Control Coordinator, (ORCC), provides the Track Maintenance Engineer, (TME), with the list of level crossings to be entered into Ellipse. The frequency of inspection is determined by the ORCC to comply with [Table 2 Clause 6.3](#).

6.4.2 Produce Draft Inspection Plan

The Section Manager Off Track, (SM(OT)), produces the draft inspection plan using Ellipse data taking into account the required inspection intervals for inspection of level crossings.

6.4.3 Is Possession Access Required

The SM(OT), and the TME, shall determine the track access requirements for the inspection activities described within the plan, such that all tasks can be completed within their prescribed inspection frequencies.

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The Infrastructure Maintenance Services Manager (IMSM) team, arrange where appropriate, all access requirements that fall within the Rules of the Route (RotR), and process such requests to conclusion.

The IMSM provides details of which possessions include elements of inspection activity, informing the SM(OT) and TME of any access requirements that cannot be fulfilled.

6.4.4 Review Access Granted

The Section Planner, (SP), in consultation with the SM(OT) and TME, periodically reviews the progress of requests for access requirements as well as any outcomes of the RotR planning process.

The SP confirms to the SM(OT) and TME that the possessions granted match the requirements of the inspection plan.

6.4.5 Has Suitable Access been Granted?

The SP shall inform the SM(OT) and TME of any access requirements that cannot be fulfilled.

6.4.6 Can Inspection be Rescheduled?

The SM(OT), TME and SP, shall explore alternative access that can be used in order to carry out the required inspections within the allowed timescale tolerance of [NR/L2/SIG/19608 Clause 7.4.2](#), 7 days.

6.4.7 Need for Risk Mitigation Measures?

In the event of there being either no alternative access or inspection strategy, the SM(OT) and the TME, shall consider alternative inspection options and due dates in order to resolve the problem.

The TME and the ORCC will determine any risk mitigation measures necessary until the next schedule date shown in Ellipse.

6.4.8 Implement Risk Mitigation

The SM(OT) is responsible for the implementation of any risk mitigation agreed with the ORCC. Where these may require changes to Ellipse MSTs, the SM(OT) shall arrange that such changes are identified, communicated and realised.

6.4.9 Finalise Inspection Plan

The SM(OT) produces an inspection plan from Ellipse annually and submits it to the TME for endorsement.

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The TME reviews the proposed annual plan inspection intervals for agreement with those defined in [Table 2 Clause 6.3](#).

The TME is to review and action any instances where compliance cannot be met.

6.4.10 Resource Availability

The SM(OT):

- Arranges for sufficient resources to be available to deliver the inspection plan
- Checks that all staff are sufficiently trained and competent
- Provides adequate equipment and resources to enable the effective inspection and repair of the equipment.

The TME and SM(OT), at a period of no more than 12 months, shall review the resourcing requirements against the maintenance plan so that resources are utilised effectively and efficiently.

6.4.11 Update Ellipse

The SM(OT) shall, on a continual basis, pass sufficient information to the SP for Ellipse to be updated with all relevant information including planned start and planned end dates.

6.4.12 Inspect and Maintain

The SM(OT) shall confirm that the Off Track Inspector (OTI) undertakes the asset inspection and addresses any minor repair work to comply with the Ellipse Work Orders.

6.4.13 Defect(s) Identified?

The OTI, as part of the inspection process, shall identify any defects requiring repair and prioritise these to comply with this standard.

All defects to be recorded on the Level Crossing Inspection Record Form, TEF3243.

6.4.14 Is it an SC defect?

All SC (previously referred to as Priority 1) defects are a high risk to the safe operation of the level crossing and are to be immediately actioned. Where they cannot be rectified whilst on site, they shall be immediately reported to the Signaller and to Infrastructure Fault Control (IFC) for immediate action response. In addition, the OTI shall report the defect to their SM(OT).

For all other defects [Clause 6.4.17](#) applies.

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6.4.15 Can SC Defect be Repaired?

The OTI shall assess the SC defect for immediate repair and if able to shall undertake suitable repair work otherwise arrange for immediate rectification through IFC (Refer to [Clause 6.4.16](#)).

6.4.16 Instigate Immediate Action Response

If the nature of the repair is beyond the immediate capabilities of the OTI, then the OTI shall immediately, in consultation with the Signaller and IFC, instigate rapid response attendance to comply with the agreed process.

6.4.17 Can Defect(s) be repaired at time of inspection?

For defects other than SC, the OTI shall assess whether a repair within the context of availability of materials, plant and individual competence; can take place safely.

Defects which cannot be addressed as part of the inspection visit shall be recorded as per [Clause 6.4.19](#).

6.4.18 Undertake Repair

The OTI having assessed the nature of the identified defect(s), shall determine those that are repairable and where they are competent undertake such work.

6.4.19 Inspection Completed

The OTI shall complete the Level Crossing Inspection Record Form, TEF3243, the relevant level Crossing Inspection Checklists listed in Table 3 and any supporting Ellipse Works Order, returning these to the SM(OT).

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