

TRANSPORT AND WORKS ACT 1992

TRANSPORT AND WORKS (INQUIRIES PROCEDURE) RULES 2004

THE NETWORK RAIL (TACKLEY LEVEL CROSSING) ORDER

**PROOF OF EVIDENCE – JERRY GREENWOOD of NETWORK RAIL
LEVEL CROSSING NATIONAL POLICY & STRATEGY**

Date: 16 MAY 2024

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1 INTRODUCTION AND STATEMENT OF EXPERIENCE

- 1.1 My name is Jerry Greenwood. I am employed by Network Rail Infrastructure Limited ("Network Rail") as Head of Liability Negotiation, based at The Quadrant, Elder Gate, Milton Keynes Central, Buckinghamshire, MK9 1EN. I have been employed by Network Rail (previously, Railtrack and British Rail) since 1980.
- 1.2 My role, as Professional Head for this activity is to direct the production of policy and technical strategy for Network Rail and advise on and its application across the business that arises from railway legislation and on other legislation (including the Transport & Works Act 1990) which also impacts on Network Rail's activities. This includes the determination of Network Rail's statutory and contractual responsibilities specifically relating to its land and infrastructure, and advising on our duties to adjoining landowners and occupiers, local highway authorities and other stakeholders.

2 SCOPE OF EVIDENCE AND STRUCTURE OF THIS STATEMENT

- 2.1 My proof of evidence provides a high-level discussion of Network Rail's support for its Tackley Level Crossing Transport & Works Order ("the Order") that, if made, would close Tackley Level Crossing ("the Crossing") along with other powers.
- 2.2 This proof should be read alongside those of Anna Holbrook (Senior Sponsor), Ian Aston (Route Level Crossing Manager), James Audley (Liability Negotiations Adviser) Andrew Willson (Engineer) and Nigel Billingsley (Property Surveyor) in relation to the Crossing.
- 2.3 My evidence speaks to various statutory and policy-informed matters underpinning key health and safety legislation and its application within the business, relating to the approach to be taken to addressing risk at level crossings, including the Crossing.
- 2.4 My evidence also outlines some instructive cases involving other level crossings (and corresponding decisions of Inspectors) as these relate to level crossing safety, risk mitigation and maintaining operational efficiency.

3 Statutorily Reinforced Network Licence Duties and Responsibilities

- 3.1 Network Rail is a regulated statutory undertaker. As the operator and owner of the national rail infrastructure Network Rail has a fundamental role to play in promoting railway safety and also improving railway performance and efficiency.
- 3.2 Network Rail is required to discharge core responsibilities to ensure both safety on the railway and ongoing operational performance and efficiency. The statutory framework relevant to this and for regulating the railways in Great Britain includes The Railways Act 1993 (as amended), The Transport Act 2000, The Railways and Transport Safety Act 2003 and the Railways Act 2005. The 1993 Act established the Rail Regulator under the Strategic Rail Authority, now the Office of Rail and Road (“ORR”).

Public Safety

- 3.3 Safety is at the very heart of Network Rail's national operational strategy. This encompasses all those who enter onto railway operational land, which includes all level crossings. As the Department for Transport (“DfT”) and ORR mandate, Network Rail has a prescribed duty of care to promote public user safety at level crossings, and to avoid unacceptable hazards to those who would use them.
- 3.4 Prior to the (temporary) closure of the Crossing, it has imported a significantly high level of risk to all users, including those who wish to access Platform 2, and those who share protected characteristics under the Equality Act 2010 (“the 2010 Act”). Users of the Crossing prior to its temporary closure, have demonstrated misuse; both deliberately and in accidental error. The Crossing is also ‘non-compliant’ with regard to users who may appropriately be identified as ‘vulnerable’ and ‘encumbered’.
- 3.5 If a level crossing cannot reasonably be made safe for onward public use, as I understand to be the case here, the reopening of that crossing would fundamentally be incompatible with the duties and responsibilities of Network Rail as provided under the Railways Act 1993 (including section 117) and Part 1 of the Health and Safety at Work Act 1974 (sections 1-3). Network Rail is responsible for the health, safety and welfare of persons from risks to health or safety in connection with its railway undertaking and railway functions.
- 3.6 In addition, Network Rail additionally owes an important duty to those who may fail to comply with warning signage or with other mitigations (such as lineside telephones), and those who deliberately misuse, or who inadvertently misuse (through their human error), a level crossing.
- 3.7 These duties and responsibilities, as well as administrative sanctions which may be levied against Network Rail, are reinforced by various criminal law and civil law sanctions exercisable against both user and Network Rail. Indeed, Network Rail has previously been prosecuted in respect of instances of its failure, resulting in injury or death, to level crossing users.
- 3.8 Section 117 of the 1993 Act provides:

Railway safety:

“117 Safety of railways and other guided transport systems.

- (1) *Part 1 of the Health and Safety at Work etc. Act 1974 (“the 1974 Act”) shall have effect as if the provisions mentioned in subsection (4) below (which relate to the proper construction and safe operation of certain transport systems, and of the vehicles used on those systems, and the protection of railway employees or the general public from personal injury and other risks arising therefrom):*
 - (a) *were existing statutory provisions, within the meaning of that Part; and*
 - (b) *in the case of the enactments mentioned in paragraphs (a) to (m) of that subsection, were specified in the third column of Schedule 1 to that Act.*
- (2) *If to any extent they would not do so apart from this subsection, the general purposes of Part 1 of the 1974 Act shall include:*
 - (a) *securing the proper construction and safe operation of transport systems to which this section applies, and of any locomotives, rolling stock or other vehicles used, or to be used, on those systems; and*
 - (b) *protecting the public (whether passengers or not) from personal injury and other risks arising from the construction and operation of transport systems to which this section applies...*
- (6) *This section applies to the following transport systems, that is to say:*
 - (a) *any railway, tramway or trolley vehicle system; or*
 - (b) *any transport system using any other mode of guided transport...”*

3.9 In so far as relevant, Part 1 of the 1974 Act provides:

“1. PRELIMINARY.

The provisions of this Part shall have effect with a view to—

- (a) *securing the health, safety and welfare of persons at work;*
- (b) ***protecting persons other than persons at work against risks to health or safety arising out of or in connection with the activities of persons at work;***
- (c) ...
- (d) ...”

Network Rail’s Licence

3.10 Further to the overarching duties of Network Rail which are codified in statute, is its governing licence (“the Licence”). The Licence, granted under section 8 of the 1993 Act (amended 01 April 2019), authorises Network Rail to operate the railway network. In support, the Government’s New National Policy Statement for National Networks, 2024 (“NN NPS 2024”) [SoC APP30] for promoting growth in the railway, confirms at paragraph 2.10: *“Railways are a vital part of the country’s transport infrastructure and play a crucial role in growing the economy and meeting the connectivity needs of customers and business.”* This recognises the imperative for sustaining and developing the national network.

3.11 Licence requirements demand of Network Rail that it secures the enhancement and development of the railway network, in accordance with best practice, and in an

economic and efficient manner, so as to satisfy the reasonable requirements of service providers and funders in respect of qualitative improvement.

- 3.12 The conditions of the Licence are properly enforceable by means including enforcement orders issued by the ORR. There is a clear requirement, overseen and enforced by the ORR, for absolute compliance by Network Rail with the Licence – in all respects. This imperative is no less critical with regard to ensuring the safety – of all.
- 3.13 Separately, under Network Rail's operating Licence is Condition 13 (Safety and Standards) of Part D (Standard Industry Obligations) under Part III. Reflecting section 117 of the 1993 Act, Condition 13 provides:

“13 Safety and standards

13.1 Except where ORR consents otherwise, the licence holder shall:

- (a) be a member of RSSB [Rail Safety Standards Board] and a party to the Constitution Agreement;*
- (b) comply with its obligations under the Constitution Agreement and the articles of association of RSSB; and*
- (c) exercise its rights under the Constitution Agreement and the articles of association of RSSB so as to ensure that RSSB shall act in accordance with the Constitution Agreement.*

13.2 The licence holder shall comply with:

- (a) the code;*
- (b) such Railway Group Standards as are applicable to its Licensed Activities; and*
- (c) subject to Condition 13.3, such Rail Industry Standards (or parts thereof) as are applicable to its Licensed Activities.”*

- 3.14 In addition to Condition 13, Part A (Core Duties and structure) under Part III of the Licence sets out Network Rail's responsibilities for maintaining, renewing, replacing and developing, improving and enhancing the railway network. Once again, this includes the core responsibility for managing safety which, in turn, extends to overseeing the safety of staff, contractors, train and station operators, and those who come onto railway land or property, either as a contracted individual or as a member of the public.
- 3.15 The management and use of any level crossing necessarily engages the above responsibilities and duties.
- 3.16 Condition 1 of the Licence states:

“1 Core Duties

Network Management Duty

1.1 The “Network Management Purpose” is to secure:

- (a) the operation and maintenance of the network;*
- (b) the renewal and replacement of the network; and*
- (c) the improvement, enhancement and development of the network,*
in each case in accordance with best practice and in a timely, efficient and economical manner so as to satisfy the requirements set out in Condition 1.2

1.2 *For these purposes, the requirements are the reasonable requirements of persons providing services relating to railways and Funders, including Potential Providers or Potential Funders, in respect of:*

- (i) the quality and capability of the network; and*
- (ii) the facilitation of railway service performance in respect of services for the carriage of passengers and goods by railway operating on the network.*

1.3 *The licence holder shall achieve the Network Management Purpose to the greatest extent reasonably practicable having regard to all relevant circumstances including the ability of the licence holder to finance its Licensed Activities (the “Network Management Duty”).*

1.4 *In complying with the Network Management Duty, the licence holder shall in particular ensure that it duly takes into account the interests of all classes of passenger operator and freight operator in satisfying the requirements set out in Condition 1.2.”*

3.17 The above informs the duty of Network Rail, ultimately regulated and enforceable by ORR and the Secretary of State, both to operate the rail network safely and efficiently so far as is reasonably practical, having due regard to all relevant circumstances. This includes its management of level crossings and their interrelationship with the railway line, operational service, and for proposed safety related enhancements of the railway.

Operational Efficiency

3.18 The Order, if made, will additionally allow for improved operational efficiency of this section of the rail network, as outlined in Network Rail’s Statement of Case (at 5.46-5.51 and 6.22-6.24). I refer to the Licence in relation to the promotion of operational efficiency; see, in particular: paragraphs 2.4, 2.5 and 2.7, 3.1 to 3.3, 13.1(b), 13.2(a) to (c), 13.4(a) and (b). Further, paragraph 2.5 concerns the appointment of an officer to oversee that activities are undertaken by a Route consistently with the licence, in an efficient and economical manner. Further, paragraph 2.7 confirms that Network Rail must comply with Governance arrangements to enable Network Rail, as System Operator, to perform its functions effectively and efficiently. Paragraphs 3.1 to 3.3 require sufficient resources to be in place to allow for compliance with the Licence.

3.19 In Network Rail’s considered view, removal of the Crossing will promote operational efficiency, and that, conversely, retention and public use of the Crossing would prove incompatible with operational efficiency objectives. For example, in addition to the benefits that will be achieved in promoting the Oxfordshire Connect Programme through removing a clear restriction to linespeed and capacity enhancements, the closure of the Crossing also avoids potential disruptions otherwise caused to passing passenger or freight services by reason of an incident occurring at the Crossing, which in turn, can have reciprocal effect on the wider network.

3.20 Consequential delays arising from temporary closure of the line, or slowing, or knock-on impacts, caused to, passenger train or freight traffic, in consequence of a train strike or near miss incident, or misuse incident at the Crossing. Delays to timetabled services can also considerably affect the efficient running of the wider network.

- 3.21 As operator and owner of the national rail infrastructure, and against a fundamental requirement for Network Rail to fully adhere to the Licence, Network Rail has an obvious and critical role to play in improving railway efficiency and a duty to enhance and improve the network in operational terms. Section 4 of the 1993 Act provides:

“4 – General duties of the Secretary of State and [the Office of Rail Regulation].

(2) [The Office of Rail Regulation] [shall] have a duty to exercise the functions assigned or transferred to [it] under or by virtue of this Part...in the manner which [it] considers best calculated—

(zb) to promote improvements in railway service performance;

(a) otherwise to protect the interests of users of railway services;

(b) to promote the use of the railway network in Great Britain for the carriage of passengers and goods, and the development of that railway network, to the greatest extent that [it] considers economically practicable...”

- 3.22 DfT and ORR also expect, where there may in future be an increase in public safety risk at a level crossing by virtue of an increase in timetabled (or non-timetabled) services, Network Rail must properly give due consideration to the impact this combined risk will introduce to other existing rail operations and services.
- 3.23 Operational inefficiency may additionally arise by virtue of delay caused to other train services on neighbouring lines and interacting services: e.g. the Western Main Line to the south; the West Coast Main Line towards Birmingham, as well as other commuter and freight services. Wider impacting delays, in consequence of movements delayed by the Crossing, is capable of causing timetable disruption. This, in turn, may mean a liability for derivative compensation payments to be made to other train operating companies, especially where train running capacity is high, as here, and maintaining operational efficiency is dependent on trains running to time, and maintaining linespeed, within their timetabled slots. All train movements are meticulously scheduled to run to time in their allocated train paths to ensure no unnecessary delays occur to other services – especially for express services on InterCity Routes, as here.
- 3.24 This risk of incurring minutes delay is especially common when train services of different speed and stopping patterns share the use of a line, as here, or indeed when lines merge at junctions with other InterCity lines. Each delayed train will further compound the original period of delay.
- 3.25 Also, under its Licence agreements held with train and freight operating companies, (here, with Cross Country, Great Western Railway and freight operators) Network Rail is required to make compensation payments in respect of all services that are delayed or cancelled, following (say) a fatality or other incident arising (e.g. a train driver who has applied emergency braking and brought the train to stop and has temporarily paused line use).
- 3.26 Commonly known in the rail industry as ‘Schedule 8’ payments, these are calculated per each minute delay incurred for non-provision of the network and timetabling, contrary to the contracted requirement for delivery.

- 3.27 In respect of the adverse impact on operational efficiency and of Network Rail's requirement to make payments of compensation to train operating companies, following on from service disruption causing by a temporary closure owing to an incident of level crossing misuse, etc., I refer to the (non-TWA) Order Decision, of Inspector Elliott in *Dorset County Council (Footpath 14, Wool at East Burton) Rail Crossing Extinguishment Order 2018 [Appx JG1]*. The Inspector states, at paragraph 89: *"Ongoing use of the crossing, the potential for a change in the user profile from adjacent residential development, the increased scope for misuse, trespass and accidental human error raises the possibility that continued use of the crossing will fail to promote operational efficiency and safety. Should an incident occur at the crossing then any temporary speed restrictions or line closure would result in delays to train services and the potential for timetable disruption Mr Greenwood explained that where a train runs late due to incident or temporary speed restrictions it can cause a knock-on effect across the network. Each delayed train can further compound the situation causing delays across the network. The closure of the crossing would reduce the risk of any incident or need for a temporary speed restriction thereby reducing any potential impacts on the rail network and any compensation to the train operating companies."*
- 3.28 Further, in referencing the consequences of disruptions to train services at paragraph 91, the Inspector further states: *"In addition to compensation to train operating companies any unnecessary disruption to train services could amount to a breach of the operating licence with the potential for enforcement orders from the ORR. This again would have adverse impacts on NR. In the event of an accident at the crossing there would also be the potential for prosecutions/penalties under the 1974 Act"*.
- 3.29 The Inspector continues, at paragraph 92: *"Bearing in mind the above. whilst the crossing remains open there is the potential that an incident might occur which impacts on the operational efficiency of the line and result in additional costs for NR. NR also may be subject to enforcement action from the ORR. The closure of the crossing will reduce the potential for such impacts and therefore is a factor which needs to be put into the balance of expediency."*
- 3.30 I add that I am aware that linespeed over the Crossing had been scheduled to be increased to 110mph; but that, in consequence of local authority objections being made to proposed bridges or subways to replace the Crossing (in the early 2000), the sole remaining option had been to impose a maximum linespeed of 90mph, thereby restricting train service efficiencies and also capacity. It may be observed also that the fatality at the Crossing, subsequently in 2008, would not have occurred had a replacement bridge then been supported by the local authority as to have allowed for its delivery.

4 OFFICE OF RAIL AND ROAD

- 4.1 The ORR (as another arms-length Government body) is the body principally responsible (together with the Secretary of State, Welsh and Scottish Ministers) for the regulation of the railway industry. The ORR is also the health and safety regulator for the rail industry and of Network Rail (through the Licence) in operating the railway.

- 4.2 The ORR and the Secretary of State have acute regard to protecting the interests of all users of railway land and rail services; to promote the use and efficiency (including financial) on those providing rail services and to provide to operators of railway services (and see properly implemented) performance protocols and formal guidance and advice that properly enable the discharge of their functions.
- 4.3 The ORR is of the view that all level crossings exhibit clear safety hazards; more so at passive level crossings. From this perspective, it is correct that all level crossings exhibit unsafe characteristics and in June 2021 the ORR published its Guidance '*Principles for managing level crossing safety*' (*"the Principles"*) (**SoC APP35**) for all who are involved in level crossing safety, including those whose activities impact on level crossing safety and the users of level crossings.
- 4.4 *The Principles* articulate a risk-based approach focusing on the interface of users, railway and highway. It identifies ways of understanding the types of use and mitigating risk appropriately. *The Principles* emphasises that risk should be reduced through the design of a level crossing or through an alternative way of crossing the railway where this is reasonably practicable, and the importance of considering how level crossings are used.
- 4.5 In managing the risk, *the Principles* further promote ORR's view (page 11, paragraph 26) that: "*the first consideration for all level crossings should be whether there are reasonably practicable alternatives to a level crossing*" and (page 27) that "*we encourage alternatives such as diversions, bridges or tunnels to be fully explored and delivered where reasonably practicable.*"
- 4.6 ORR endorses the closure of level crossings where there is Network Rail assessed risk to public safety and where there is no other suitably viable option to adequately overcome or mitigate the risk. Network Rail's view on the Crossing, having assessed each option, including having undertaken Cost Business Analysis¹ and under Gross Disproportionality², is that it cannot be made safe SFAIRP.
- 4.7 The closure of unsafe crossings, especially where there exists a suitable alternative route, or one that can be created, also has strong Central Government support, collaboratively with the ORR. During Network Rail's (five year long) Control Periods CP4 (04/2009 – 03/2014) CP5 (04/2014 – 03/2019), CP6 (04/2019-03/2024) and CP7 (04/2024 – 03/2029) – and separately from the authorised funding for this TWA application – the ORR and DfT had originally allocated more than £230 Million of funding for level crossings closures and related projects.
- 4.8 DfT has confirmed HM Government's commitment to this TWA Order, which has provided public commitments to fund, subject to meeting ongoing Value for Money ("VfM") considerations in order to ensure the Project delivers the best results for both rail users and taxpayers. I understand that the funds, as authorised, meet the capital

¹ The CBA is calculated by an Algorithm tool in ALCRM to automatically calculate the required Cost Benefit Ratio in relation to expenditure.

² The Health and Safety Executive states "*The concept of gross disproportion requires duty-holders to weigh the costs of a proposed control measure against its risk reduction benefits.*" [HSE principles for Cost Benefit Analysis in support of ALARP. See also Level Crossing Guidance LCG 24 - Guidance for applying GDF.](#)

cost of implementing the Order, inclusive of undertaking the programmed works, including acquisition of land and compensation, and environmental mitigation.

- 4.9 I understand also that optioneering has been robustly appraised. Options were considered by a panel of technical experts against performance, environment and suitability, design, cost, deliverability and maintainability criteria, including consideration of how the option would manage risk at the Crossing, culminating in the recommended option selection for closure, with the construction of a stepped station footbridge with lifts – and creation of a new bridle diversion route. Indeed, together, my colleagues explain the work that has been undertaken by Route technical experts to address the high level of risk to Crossing users, prior to its closure and balanced against any imported risk that may arise to those users, in consequence of its closure on safety grounds.
- 4.10 Ian Aston sets out in his Proof the options previously considered as part of the Assessment process and has considered the Cost Benefit Analysis including applying a Gross Disproportion Factor for each option in mitigating risk. His assessment verifies that the option proposed under the Order, viewed in the site-specific circumstances, are correct, so mitigating public risk SFAIRP and ensuring that the VfM test is met.
- 4.11 That option has been allocated authorised funding for it to be delivered.

5 RAIL SAFETY AND STANDARDS BOARD (“RSSB”)

- 5.1 The Rail Safety and Standards Board was established in 2003, based on key recommendations from Lord Cullen's public inquiry into the Ladbroke Grove rail disaster in 1999. Its core function is to capture and share standards and best practice, with rail organisations and other industries in Britain and abroad. The RSSB:
- collects, model, and analyse data on railway systems, safety, and health;
 - develops, agrees and maintains standards for the industry;
 - commission and conduct research to address industry challenges;
 - explores existing and future technologies that could benefit the industry and its customers.
- 5.2 RSSB has produced several Standards and Guidance specifically relating to Leading Health & Safety on Britain's Railways, incorporating LC safety (including at stations), Leading the Research in Public Safety and Public Behaviour and Human Factors, Near Miss reporting and development of ALCRM algorithms, all of which Network Rail has incorporated into its current policy and strategy for managing level crossings³.
- 5.3 Under Licence conditions 13.1 (b) and 13.2, Network Rail is required to comply with RSSB's Codes and Guidance and Standards which promote operational safety, safety

³ See Leading Health and Safety on Britain's Railway Issue 3 (April 2020 (**Appx JG2**)). RSSB T730 Understanding Human Factors at Station LCs (2009) (**Appx JG4**), RSSB T984-Revision 1-Causes-of-Pedestrian-Accidents-at-LCs-[Report] June 2015 (**Appx JG12**), RSSB T936 Research-Brief-Enhancing Accuracy and Functionality of ALCRM. (**Appx JG7**)

of the travelling public and individuals (public or private) who interface with railway operations – namely, at level crossings.

6 NETWORK RAIL'S SAFETY STRATEGY FOR LEVEL CROSSINGS

- 6.1 Network Rail's duty under Health and Safety legislation includes a responsibility for users of the Crossing, so far as is reasonably practicable. Network Rail is firmly committed to eliminating accidental fatalities across all its level crossing estate. This is an established, long-term strategy. Closure of level crossings has been proven to be the most effective way of removing risk from the network.
- 6.2 Network Rail's policy for managing level crossing risk is published within its document: *'Enhancing Level Crossing Safety 2019–2029'* [SoC APP36]. Designed around SFAIRP and ALARP (i.e. As low as reasonably practicable) principles, the policy sets out a long-term strategy targeting improved safety on Britain's railways, with our long-term level crossing safety vision as: *"No accidents at level crossings on Britain's main line rail network"*.
- 6.3 Aligned with RSSB's strategy *'Leading Health and Safety on Britain's Railway'* [Appx JG2] which targets improved safety at level crossings as one of its 12 key priorities, *"Enhancing Level Crossing Safety"* highlights Network Rail's strategic long-term goals for level crossings as:
 - (a) Reduce safety risk to the public, passengers and our workforce;
 - (b) Increase rail capacity and performance across the network;
 - (c) Reduce operational and financial risk.
- 6.4 It highlights that Network Rail will reach these goals by meeting the following level crossing strategic objectives:
 - (a) Maximise risk reduction;
 - (b) Fewer fatalities injuries and near misses;
 - (c) Reduce the likelihood of human error,
 - (d) Change user behaviour; and
 - (e) Improve reliability at our level crossings.
- 6.5 To meet these objectives *"Enhancing Level Crossing Safety"* clearly identifies four areas of targeted focus:
 - (a) Risk Management;
 - (b) Technology and Innovation;
 - (c) Competence Management; and
 - (d) Education and Enforcement.
- 6.6 Effective risk management includes reducing the number of active open level crossings; continuing on-going risk reduction; risk-based prioritisation of actions; undertaking inspection and maintenance activities; deploying the next generation of the industry recognised risk assessment model 'All Level Crossing Risk Model' ("ALCRM") with

updated complex algorithms such that they are further enhanced and aligned with the industry's Safety Risk Model⁴ (SRM) (see Section 8, page 28).

- 6.7 Network Rail's commitment is to seek ways to continually improve our risk assessment processes so that emerging human factors risks, and other hazards are fully incorporated within core risk management activity. Further improvements include the number of extended censuses undertaken within risk assessments to provide the best intelligence possible to determine when level crossings are used, at what frequency and by whom (user demographics, vulnerable and encumbered usage etc.).
- 6.8 The 'Enhancing Level Crossing Safety' strategy states (at page 23): *"Wherever practicable and safe to do so, any diversions will seek to utilise conveniently located over-bridges or underpasses to assure public money is efficiently managed."*
- 6.9 It is widely acknowledged in the rail industry that the closure of level crossings is the most effective way to remove safety risk. This is consistent with the General Principles of Prevention, set out in Schedule 1 of the Management of Health and Safety at Work Regulations 1999, in particular the following:
- (a) avoiding risks;
 - (b) combating the risks at source; and
 - (f) replacing the dangerous by the non-dangerous or the less dangerous.
- 6.10 The ORR's determination of Network Rail's funding for the previous Control Period (CP5: 2014–2019) had identified a requirement to maximise level crossing risk reduction. This requirement was not diluted under CP6 nor is it under CP7 (2024-2029).
- 6.11 Amongst the safety-led initiatives delivered by Network Rail to date, in the promotion of increasing standards of safety, have been the following:
- (a) The introduction of over 100 Level Crossing Managers since 2012, to manage risk and risk mitigation at over 6,000 level crossings nationally;
 - (b) closure of over 1378 level crossings since 2009 and removed vehicular use from a further 106;
 - (c) the use of 3 Transport and Works Act Orders (TWAOs) successfully piloted on Anglia Route, as a more strategic approach to improving level crossing safety and operational efficiency;
 - (d) installation at 150+ level crossings with spoken audible warnings to announce when 'another train is coming' after one train has passed through (this control being a direct outcome of the Elsenham fatalities on 03 December 2005);
 - (e) deployment of more cost-effective 'overlay' miniature stop light ("OMSL") systems to improve safety at footpath and user worked level crossings, where feasible (in both practical and financial terms);
 - (f) installation of red-light safety equipment ("RLSE") at c100 public road level crossings to improve user behaviour, deterring deliberate misuse. Trials this

⁴ RSSB [Safety Risk Model](#)

year have demonstrated that these Home Office Type Approved (“HOTA”) cameras have reduced deliberate misuse by up to 90% at some locations;

- (g) Network Rail’s fleet of 15 mobile safety vehicles, operated in partnership by the British Transport Police continues to target locations of poor user behaviour;
- (h) developing feasibility for installing less costly modular Fibre Reinforced Plastic (FRP) footbridges;
- (i) in partnership with RSSB, Network Rail has further developed ‘ALCRM’⁵ (the *All Level Crossing Risk Model*) at a cost of c£3M to allow for an improved understanding of specific level crossing risk, and
- (j) Introduction of undertaking narrative Risk Assessments (“NRA”) ⁶ at every level crossing on the network, as part of the risk assessment process.

6.12 As an open interface between the railway and the highway, level crossings are giving rise to an increased potential for user behaviour to affect train operations. They have differing levels of protection and are broadly split into two groups. Passive crossings, such as the Crossing that do not automatically lower barriers or gates at the approach of a train and which carry little to no warning of train approach (i.e. Miniature Stop lights fitted to a few, or the train driver who may use the train horn). The onus is thus on the user to determine whether it is safe to cross the line, in conjunction with instruction and signage.

7 THE EXPERT SAFETY ASSESSMENT OF LEVEL CROSSINGS

- 7.1 Network Rail’s statutory duty lies under the Health and Safety at Work etc., Act 1974, for the health, safety and welfare of its employees and for protecting others against risk at level crossings. Regarding level crossings, this is to reduce level crossing risk SFAIRP. In respect of the Crossing, I understand that this encompassed risk assessment, culminating in the recommended option. Where there is a change in railway operations, such as the proposed change to the current timetable, changes or enhancements in railway infrastructure that may potentially impact upon the risk to public safety of users of a level crossing, a new assessment may be undertaken, to identify the increase in risk and how this might be mitigated against cost, SFAIRP. Consistently, an Impact Assessment Report has been produced in respect of the Crossing, during the period when it has been closed to use.
- 7.2 I am aware that the Impact Assessment Report for the Crossing confirms non-compliance for sighting of trains (approaching in one direction).
- 7.3 It is important to understand that ‘compliance’ with level crossing Standards (e.g. in connection with required sighting distances at each level crossing) is not to be equated with ‘safety’; a basic mistake not uncommonly made by those without railway safety expertise. As referenced by Inspector Tregembo in deciding the proposed

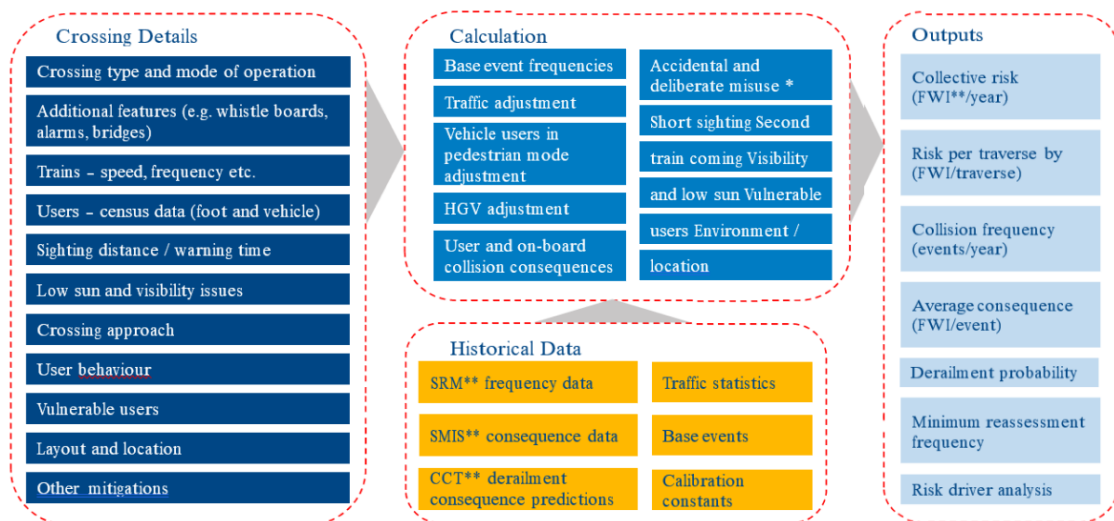
⁵ RSSB T936 Research-Brief-Enhancing Accuracy and Functionality of ALCRM (**Appx JG7**)

⁶ NRAs were introduced to risk assess all LCs on the national network as part of Network Rail’s risk strategy management for level crossings. See NR Line Standard NR/L2/OPS/100 (**Appx JG13**)

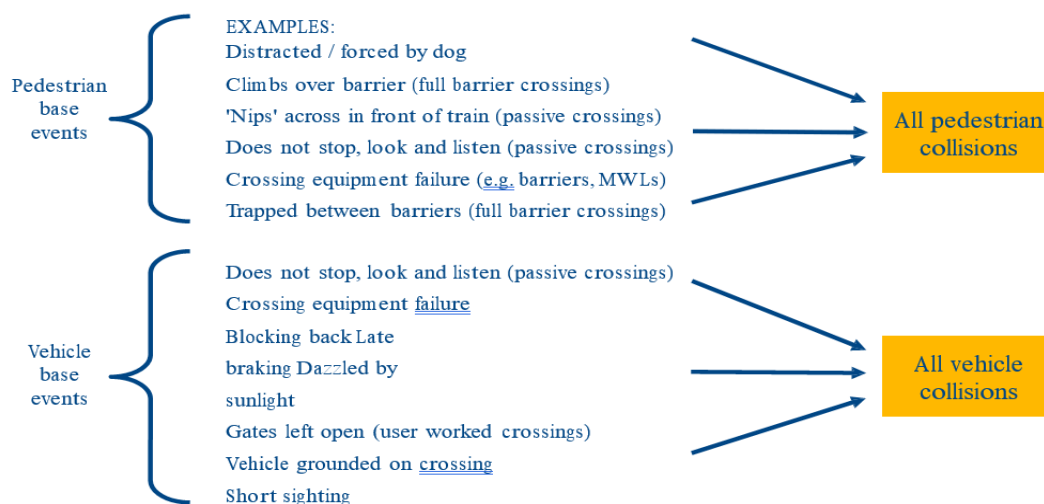
extinguishment of the footpath over 'Penny's foot crossing' (*Doncaster Borough Council Public Footpath Rossington Number 10 (Part) Rail Crossing Extinguishment Order 2019*) by her Order Decision dated 17 November 2023 (**Appx JG3**): "a 'compliant crossing' is not the same as a safe crossing." This rationale provided for a TTRO to be consented by the Highway Authority, so allowing for temporary closure of the Crossing.

Quantitative Assessment of Risk

- 7.4 The industry certified ALCRM tool is used to calculate quantitative risk. Introduced in 2007, ALCRM the original risk model was developed through extensive research and risk assessment approaches since the early 1990s through a collaborative partnership between RSSB, Network Rail and Arthur D. Little ("ADL"). In 2016/17, RSSB and Network Rail commissioned ADL to implement new improvements and algorithms including the accumulation and interpretation of better and more robust incident data, into a new version of ALCRM, ALCRM2 in 2020.
- 7.5 Network Rail commissioned ICON Solutions to implement the new software, with the interface updated to accommodate the new algorithms. The new software version integrated the functionality of the NRA, which was previously carried out in a separate system. This now consolidates the whole level crossing risk assessment process in a single application, enabling increased accuracy of risk assessments, an improved understanding of risk and more robust decision making.
- 7.6 Using historical data about level crossing risk across the whole level crossing estate by type, and specific details of an individual crossing to calculate key risk outputs, it provides the quantitative risk calculation. It then calculates the risk rating for each separate level crossing. By feeding in the additional data by the Level Crossing Manager ("LCM") from the increase in train services, length and speed of approaching trains, the different sight lines and distances that become applicable, the system will generate the risk, including a new ALCRM rating and the FWI.
- 7.7 ALCRM assesses the risk profile of a level crossing based on the following:



- 7.8 Collision events categorised according to their causes, are also incorporated into the algorithms as 'base events':



- 7.9 Any incidents in relation to the Crossing are uploaded to a Safety Management Information System (a repository database used by Railway Group members to record details of all safety related events which occur on infrastructure managed by Network Rail) and from the RSSB's Safety Risk Model ("SRM").
- 7.10 ALCRM then assigns each level crossing two metrics, ALCRM is composed of two elements, a letter (representing Risk per Traverse) and a number (representing Collective Risk).
- Risk per Traverse ("RPT") from A to M (with M being the least risky and A being the greater risk). This is based on the FWI measure, and the relationship between the two is explained below.
 - Collective Risk (from 1 to 13, with 1 being the most risk and 13 being the least risk). These metrics are explained below.

Risk per Traverse

- 7.11 RPT, calculates risk 'per traverse', and indicates how dangerous a crossing is to use, regardless of the level of use. The RPT makes no assumptions about a 'typical user' and expresses risk in a numerical representation of FWI/Traverse. It is basically the measure of the likelihood of being struck, killed or injured by a train every time the Crossing is traversed.
- 7.12 RPT is, in effect, a fraction expressed as a decimal that expresses the chance of being injured or killed by a train each time the crossing is traversed. To give an example, if the RPT is 1/5,000 that means one can expect an injury/fatality in every 5,000 traverses – then the RPT will be 0.0002.
- 7.13 There are different RPT assessments made for different kinds of users, e.g. heavy and non-heavy vehicles users, pedestrians, train staff and passengers. Each is allocated a decimal value in ALCRM once the overall calculation is completed, and together they collectively form the overall alphabetic letter value allocated by ALCRM as the RPT.
- 7.14 Given the difficulty of working with small decimal numbers, the RPT is mapped onto an alphabetic scale for usability. A weighted average is mapped to the existing individual risk scale – A to M, with 'A' representing the highest risk and 'M' representing nil risk.

Collective Risk

- 7.15 Collective Risk is an overall assessment of the actual injuries at a given level crossing. It is expressed as a measure of the total harm, or safety loss and is expressed in terms of FWI per year. For example, the value 1 represents: 1 fatality or 10 major injuries or 200 minor RIDDOR⁷ injuries or 1000 minor non-RIDDOR injuries per year.
- 7.16 Collective Risk is reported by ALCRM in a simplified form referred to as a 'Collective Risk Number' ranked from 1 to 13 (1 representing the highest risk and 13 representing nil risk).
- 7.17 RPT and Collective Risk are both measures of risks; but they are different measures of risk. Therefore, a dangerous level crossing that has a high risk 'per traverse', may be used so infrequently that its Collective Risk remains low.

Qualitative Assessment of Risk

- 7.18 The qualitative aspect of the assessment is the LCM's Observations and Opinions and is derived from their expert judgement garnered from their local knowledge and assessment of a particular level crossing.
- 7.19 The local knowledge will be gained from many sources such as for example, when the LCM is out on site undertaking ongoing inspections and assessments, building relationships with landowners and authorised users of a level crossing, who can provide valuable information as to how and when the Crossing is used. Undertaking census checks to establish how many times over a given period a level crossing is being used, and by whom, and interviewing actual users to identify particular day to day issues that may not be immediately obvious, etc., including whether the Crossing is being used correctly and therefore safety.

Narrative Risk Assessment and Impact Assessment Report

- 7.20 The NRA is the report that expertly assesses the current risk of each individual level crossing. Along with the ALCRM rating, all the local knowledge is recorded into the NRA, taking into account all the circumstances that affect the Crossing, both directly from the railway (train movements, speed and numbers, sighting distances, etc., as well as the risks from the surrounding environment (the type of environment around the crossing, number of users, how the crossing is used, their physical restrictions, distraction, etc.).
- 7.21 As above, with the Crossing temporarily closed, an Impact Assessment Report was undertaken. This has allowed for the assessment of risk were the Crossing to be reopened. This assessment may also encompass, amongst other matters, misuse of the Crossing as well as vulnerable and encumbered use.
- 7.22 Vulnerable use is considered with regard to the demographic of level crossing users. The assessment of vulnerable use in relation to level crossings is adjudged by Network

⁷ RIDDOR - Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (2013). RIDDOR imposes duties on employers, the self-employed and the Responsible Person in control of work premises to report serious workplace accidents such as fractured bones, accidental amputations, burns etc, occupational diseases (e.g. Carpal Tunnel Syndrome, HAVS – Hand, Arm, Vibration Syndrome etc) and specified dangerous occurrences (near misses - apply to all workplaces and include incidents involving, lifting equipment, pressure systems, overhead electric lines, electrical incidents causing explosion or fire)..

Rail, as expert assessor. The ALCRM overall risk score for the Crossing allows for the incorporation of risk scoring inputs and outputs.

Station Passenger LC (“SPC”) Requirements and the Public Sector Equality Duty

- 7.23 Prior to closure of the Crossing, access for all passengers between the platforms at Tackley, was enabled by use of the Crossing. As a Station Passenger level crossing, it was also a ‘station facility’ for the purposes of the Railways Act 1993. This imports wider responsibilities, specifically in Network Rail meeting the Accessible Travel Requirements for all users. This includes the requirement for access to platforms in the station to be step-free for all users, including those who may be disabled, such as being mobility impaired or confined to a wheelchair. Allowances for deaf or blind passengers must also be considered.
- 7.24 Following the fatal accident at Elsenham Station Crossing in December 2005, the Rail Accident Investigation Board (“RAIB”) made recommendations to Industry for the review of features of station crossings. Recommendation 4 invited the ORR in consultation with Network Rail and the Department for Transport (DfT): *“to undertake a comprehensive review of existing guidance relating to the design of station pedestrian crossings.”* (See RSSB T730 *“Understanding Human Factors at Station LCs”* (**Appx JG4**).
- 7.25 This presents a more intensive risk management regime on level crossings at stations including the Crossing at Tackley, were it to reopen. This, in turn, would include due consideration of:
- guidance relating to the design of station pedestrian crossings;
 - existing and potential roles of current technology;
 - understanding of current good practice in relation to human factors, and the extent to which this is delivered with current design;
 - fencing to direct passengers to the SPC that gives optimum sighting of trains and signs;
 - option consideration for 'another train coming' warning;
 - identification and assessment of a number of other options to change design and enhance SPCs.
- 7.26 Separately, Network Rail is required to properly exercise the public sector equality duty, arising under s.149 of the Equality Act 2010⁸ and other requirements in order to ensure adequately that access for all, is satisfactorily provided for at stations. Pursuant to this duty, Network Rail must have due regard to matters including the need to remove or minimise disadvantages suffered by passengers due to their protected characteristics and to take account of disabled people’s disabilities. In relation to the Crossing; Network Rail is required to make reasonable adjustments for disabled passengers at stations in order not to discriminate.

⁸ See also the [Equality Act 2010](#), [The Equality Act 2010 \(Specific Duties\) Regulations 2011](#), and DfT’s [“Design standards for accessible railway stations”](#) v.04 2015 (W1 ‘Crossing the Track’)

Census Good Practice Guidance

- 7.27 The Level Crossing Guidance Document ‘Census Good Practice’ (“CGP”) (**Appx JG5**), section 5.3.6.1, underscores the LCM’s structured expert judgment. The LCM is the ‘competent’ person responsible for the safe management and risk assessment of level crossings” (CGP Section 2) and the ‘final decision’ (section 5.3.6.1) rests with the Route level Crossing Manager’s structured judgment, supported by their expert team.
- 7.28 The ‘reasonable practicability’ of the application of the CGP in the context of risk assessment imports flexibility in its application, as to accommodate both established and emerging trends in human behaviours, including hazardous trends demonstrated by level crossing users. The categorisation of vulnerable use for the purposes of the CGP (see section 5.3) is similarly inclusive, rather than exhaustive. The circumstances in which vulnerable users, as categorised, may demonstrate vulnerability, are equally not exhaustive (see section 5.3.5). For example, in consideration of the elderly, the disabled, sole/unaccompanied minors, accompanied minors (including those passing at distance from their parent/guardian) and those encumbered, it is open to the LCM to apply a ‘50% safeguard’. A final decision on the application of this safeguard is a matter for expert judgment. CGP paragraph 5.3.6.1 underscores this assessment practice.
- 7.29 With regard to ‘sample ratios’ provided for in the CGP, the safeguard may (albeit may not typically) be applied with regard to 1:5 (vulnerable user). A risk-based assessment supportive of a ratio of 2:5 users, would also properly allow for application of the safeguard, as indeed, could a much lower ratio by which the total number of users is excessively high, and a separate – but lower percentage, give an unacceptably high number of vulnerable users which merits application of the safeguard.

Risk Mitigation Optioneering

- 7.30 Influenced by the rise in FWI and ALCRM quantitative rating, and based on the site specific qualitative assessment of the LCM highlighting the key safety factors of perceived uncontrolled and uncontrollable risks that collectively underscores why a level crossing may become demonstrably unsafe for continued public use, the IAR requires the inclusion of an optioneering exercise of all feasible options to properly consider the mitigation of risk to as low as reasonably practical (ALARP).
- 7.31 The recommended option then to be included in the draft Order is also subjected to further consideration by an expert panel which additionally takes into consideration additional circumstances, as this may affect the outcome of the final option to be progressed. This includes budgetary provision and spending availability across the whole scheme, and consideration of Network Rail’s PSED requirements under the Equality Act 2010.
- 7.32 Each single option is subjected to robust Cost Business Analysis (“CBA”) that also incorporates a calculated Gross Disproportion Factor (“GDF”), thereby providing a structured and a consistent framework in determining whether the cost of implementing a control measure is grossly disproportionate against the reduction in risk. It considers the optioneering process when also taking into consideration Gross Disproportionality, to be the fairest in determining what options should be progressed, bearing in mind that the cost is weighted in favour of expenditure under gross disproportionality. As DfT

confirms, the cost of implementing risk measures must not exceed the benefit that those measures might achieve.

- 7.33 Regarding the latter, in the exercise of its functions, Network Rail must have due regard to users with protected characteristics under the 2010 Act, specifically as the Crossing is also used as a SPC. That includes, for example, consideration of users with disabilities and who may have mobility issues, poor sighting or hard of hearing, and which, for access to a station mandates the requirement for step-free access to all platforms.
- 7.34 Although that justifies the construction of a suitable stepped footbridge with lifts, DfT has made it clear that Network Rail must comprehensively consider the cost of implementing further risk control measures against the reduction in risk which those measures may achieve. Consequently, in the present case where the intention is to preserve and enhance the existing PRow network, I understand that the disproportionately high cost of a second, ramped bridleway structure cannot be justified, in preference over a proposal for the alternative bridleway route.
- 7.35 Further, I understand that the IAR has been undertaken without factoring into account the impact of inevitable future residential development that will subsequently occur in later years within the vicinity of the Crossing – in terms of the number of likely daily traverses over the Crossing and also the likely consequential change to overall user profile in risk terms.

Managing Public Money as to Costs

- 7.36 As an arms-length public body, the ‘Managing Public Money’ principles have full application. As is stated on page 8 in the May 2023 handbook⁹: “...*the key themes... are the fiduciary duties of those handling public resources to work to high standards of probity; and the need for the public sector to work in harmony with Parliament.*” Network Rail must therefore always ensure that it manages public money responsibly, which necessarily means adhering to the principles, rules, guidance and advice set out by Government.
- 7.37 The Handbook notes (at paragraph 4.3) under ‘Opportunity and Risk’, “*Embedded in each public sector organisation’s [i.e. Network Rail] internal systems there should be arrangements for recognising, tracking and managing its opportunities and risks. Each organisation’s governing body should make a considered choice about its desired risk appetite, taking account of its legal obligations, ministers’ policy decisions, its business objectives, and public expectations of what it should deliver.*”
- 7.38 The objective is to secure the operation and maintenance, renewal, replacement, improvement, enhancement and development of the network, in each case in accordance with best practice and in a manner that is efficient and economical. I note also that the imperative for cost-effectiveness, both ‘within the business’ of Network Rail, and in terms of central Government capital expenditure and investment within infrastructure projects (of both a small scale and large scale) is ever-increasing. The

⁹ [Managing Public Money May 2023](#)

attendant requirement, being a fundamental requirement, for fiscal prudence an extremely strong guiding principle. The corollary of this is that the assessed, evidenced and strategic justification for capital expenditure on infrastructure such as bridges and tunnels must be demonstrably shown. Network Rail would be required to justify all additional expenditure, wherever a comparatively safer and more cost-effective alternative exists, such as removing all risk through the closure of these Level Crossings.

- 7.39 Below are example paragraphs from ‘Managing Public Money’ to which Network Rail must adhere (the origins of which, it will be remembered, preceded the latest economic downturn and before that, the most recent, Department for Transport budget cuts):

5.5.2 *“Because commitments can evolve into spending, they should always be scrutinised and appraised as stringently as proposals for consumption. Some departments may agree with the Treasury blanket authority for defined and limited ranges of non-statutory commitments, e.g. indemnities for board members and commitments taken on the normal course of business. All other non- statutory commitments are novel, contentious or repercussive, so Treasury approval is always essential before they are undertaken;*

7.1.1 *Public sector organisations may be able to deliver public services more successfully if they work with another body. Central government departments may find it advantageous to delegate certain functions to ALBs that can be free to concentrate on them without conflict of interest. Or it may be helpful to harness the expertise of a commercial or civil society sector organisation with skills and leverage not available to the public sector;*

7.1.2 *Any such relationship inevitably entails tensions as well as opportunities. The autonomy of each organisation needs to be buttressed by sufficient accountability to give Parliament and the public confidence that public resources are used wisely;*

7.5.1 *To promote better delivery and enhance efficiency, departments often find it useful to work with other government departments. This can make sense where responsibilities overlap, or both operate in the same geographical areas or with the same client groups – arrangements loosely categorised as joined up government. Such arrangements can offer opportunities for departments to reduce costs overall while each partner plays to its strengths.’*

- 7.40 This resonates strongly with the responsibility of Network Rail to funding decision-making and to allocating expenditure, in a proportionate and sequentially appropriate way, on an assessed and evidenced basis. It is therefore entirely reasonable for Network Rail to scrutinise the cost-efficiency of any and all mitigation measures. Network Rail must have appropriate regard to the need for railway operational efficiency and enhancing train services. Network Rail is not required to provide, at any cost, an alternative crossing solution in effective substitution for level crossings.

- 7.41 There is always a high level of competing infrastructure demands and financial resourcing is finite – and, as above, this resourcing is becoming even more finite. It is clear that there is no contingency funding available to cover the implementation of high

cost mitigations/options against every level crossing and which is not included within the current Upgrade 'Business Plan' or in the emerging Business Plans for CP7 (as ratified and agreed by DfT¹⁰) so as might meet additional (i.e. unforeseen) expenditure demands during CP7. Funding would instead, need to be drawn down contrary to already formulated, assessed and signed-off budgets, all with oversight by ORR.

- 7.42 In application of this approach, in principle, the site-specific facts of each level crossing site undoubtedly feature very significantly as but one reason for discounting the allocation of (very substantial) expenditure/funding for new crossing infrastructure, such as an additional bridleway bridge, where a suitable and more cost-effective diversion can be created with the express agreement of the affected landowner.
- 7.43 Expenditure decisions are understandably not exercised by Network Rail in relation to individual locations without consequential regard to other highly competing commitments and demands. Even in progressing closure of this single bridleway crossing, the construction of a replacement station bridge with lifts and a quality bridleway diversion has been proposed at a combined significant cost, where the appropriateness of this option has been assessed.
- 7.44 I cannot emphasise too forcefully how such demands continue to increase, apace. The significant impracticality of even projecting a reallocation of expenditure to another infrastructure commitment, is clear. It would be necessary to divert assessed safety funding away from one or more other comparatively meritorious schemes elsewhere within the Route, with the risk that those schemes either not coming forward or suffering significant delay. Such an unsatisfactory, ad hoc approach to expenditure would also be strongly contrary to the strategic and holistic implementation of planned expenditure to meet required safety and operational efficiency objectives.

8 DELIBERATE MISUSE and ACCIDENTAL HUMAN ERROR

- 8.1 The Crossing demonstrates an extremely concerning history of unsafe behaviour by users amounting to 'misuse'. Misuse encompasses both deliberate actions as well as behaviour described as accidental human error.
- 8.2 Categories of misuse, include deliberate misuse: alone or in groups, trespassing onto the railway, sitting on the crossing deck, taking selfies or photographs on the crossing. It also includes those who see a train approaching but who out, directly over the crossing, in an attempt to beat the approaching train.
- 8.3 Errors in judgement when crossing include those who:
- do not look for approaching trains before and during crossing, or
 - do not wait for an approaching train to properly clear, and cross in front of a second approaching train that they did not see or hear, or

¹⁰ DfT has committed £43.1 billion to Network Rail for CP7 (01-04-2024 to 31-03-2029). The high-level output specification makes it certain the government will proceed with rail enhancements and efficiencies, maintaining a strong focus on operations, maintenance, and renewal, whilst tackling difficulties like fragmentation and outdated working practises.

- only look in one direction, or only looked when actually stood on the Crossing deck.
 - Pedestrians can be distracted by using the crossing whilst wearing headphones or use the crossing while using mobile phones, or who are
 - distracted when crossing with horses or dogs and are focused on their animals rather than looking out for an approaching train.
- 8.4 Seven serious instances of such misuse are known to have occurred over the 12 months preceding closure. As part of the misuse history, it is known that some horse riders have either not used telephones, as required, before crossing or have failed to use them correctly.
- 8.5 RSSB advise public user, particularly pedestrians, are mostly exposed to the risk presented by level crossings, with the risk higher at unprotected, passive crossings¹¹.
- 8.6 ORRs '*Principles for managing level crossing safety*' (**SoC APP35**) (at paragraph 20) advises: "*The user's understanding may not match how the level crossing is intended to be used.*" Despite also, sustained network-wide campaigns intended to educate of the risks of level crossings, users do not consistently behave in an appropriate manner.
- 8.7 The level of deliberate misuse or accidental human error, for example, remains high. Under paragraph 13 of the Licence, Network Rail is required to comply with RSSB standards, to mitigate misuse at level crossings.
- 8.8 Over 20% of pedestrians crossing an operational railway line inadvertently place themselves in harm's way. Stop, Look, Listen' (SLL) signs are dependent upon all users paying attention and to continue to look and listen whilst crossing. However, the RSSB has used eye-tracking devices to ascertain that a small, but significant, number of users (around 5%) fail to check for trains in either direction. A further 16% only looked in only one direction, anywhere on the approach or traverse, presumably relying on peripheral vision, hearing or an expectation that no train is coming.
- 8.9 This risk is significantly increased whereby a user has seen a train approaching and makes the decision to cross quickly, before it arrives; but fails to look for trains in the opposite direction. This is a known event in respect of Tackley, where the Crossing is also a PSC.
- 8.10 An unwillingness to wait for trains to pass can be influenced by everyday factors such as time pressure, over familiarity with a level crossing. The RAIB confirms that a significant proportion of train strikes with pedestrians are attributed to 'fails to stop/look/listen'. The '*Principles for managing level crossing safety*' also advises of natural human tendencies and people's unwillingness to wait. At page 8 paragraph 21 it notes: "*People will look for a quicker and easier way of doing something, especially if they are regular users. They may build up assumptions about the timing of trains and when they consider it is safe to cross; however, trains do not always run to time or freight trains may be time tabled when not expected.*"

¹¹ See RSSB Operations and Management Report T984 '*Research into the Cause of Pedestrian Accidents at Level Crossings June 2015*' (**Appx JG12**)

Misuse in conjunction with an Obscured Train

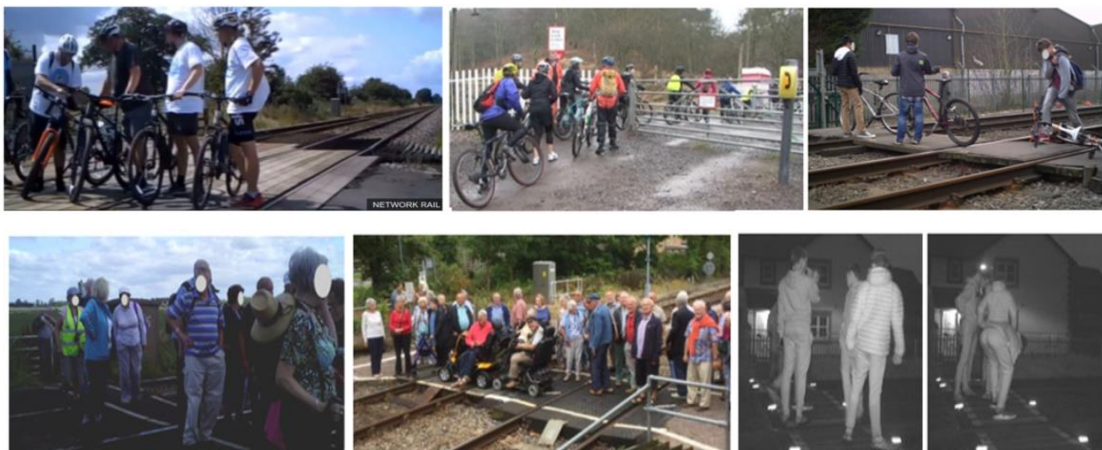
- 8.11 In addition, is the possibility of one train obscuring the sighting and sound of a second train. The RSSB acknowledges in its publication *'Level Crossing Digest Issue 4 2022'* (**SoC App37**) at paragraph 4.3: *"Crossing immediately behind one train, unwittingly into the path of a second on the other line, is a common factor in fatalities on passive crossings"*. By example, RAIB Accident Report (01/2023) in respect of the fatality at Lady Howard FP & BW LC (**Appx JG6**), concluded that the cause of the accident was that the pedestrian, when stood at the side of the level crossing with her dogs, was awaiting the passing of an approaching train and apparently unaware that a second train was approaching from the opposite direction when crossing. She did not perceive the risk arising from the possibility that the passing train was obscuring the second train approaching.
- 8.12 The RAIB recommendation on passing trains is that Network Rail should:
- (a) use its existing risk assessment data to identify those footpath and bridleway crossings that present the highest risk to users of a second train approaching being potentially hidden by another train; and
 - (b) at those crossings identified as presenting the highest risk, implement appropriate measures to control the risk to users of a second train approaching in deciding what measures to implement.
- 8.13 This risk was very recently considered by Inspector Tregembo in deciding the Doncaster Borough Council Public Footpath Rossington Number 10 (Part) Rail Crossing Extinguishment Order (**Appx JG3**). At paragraph 43, she stated: *"The InterCity trains are 260 metres long and freight trains vary in length from 420 to 775 metres. This can lead to trains being hidden by trains passing in the opposite direction. London North East Railway company have confirmed many of their trains pass each other close to Penny's Crossing making this a significant risk and hidden trains have been the cause of many near-misses and actual fatalities. During the site visit, two trains passed each other close to the crossing. Given the marginal crossing times with full sight lines, I consider hidden trains a significant risk to public safety in this location."*
- 8.14 The photographs below present a visual example of the obscured train occurrence. At this level crossing near Leeds, a cyclist who, having also seen an approaching train similar to the pedestrian at Lady Howard, waited at the crossing gates for it to pass. The photographs are taken from the two trains as they passed over the level crossing at 70mph.



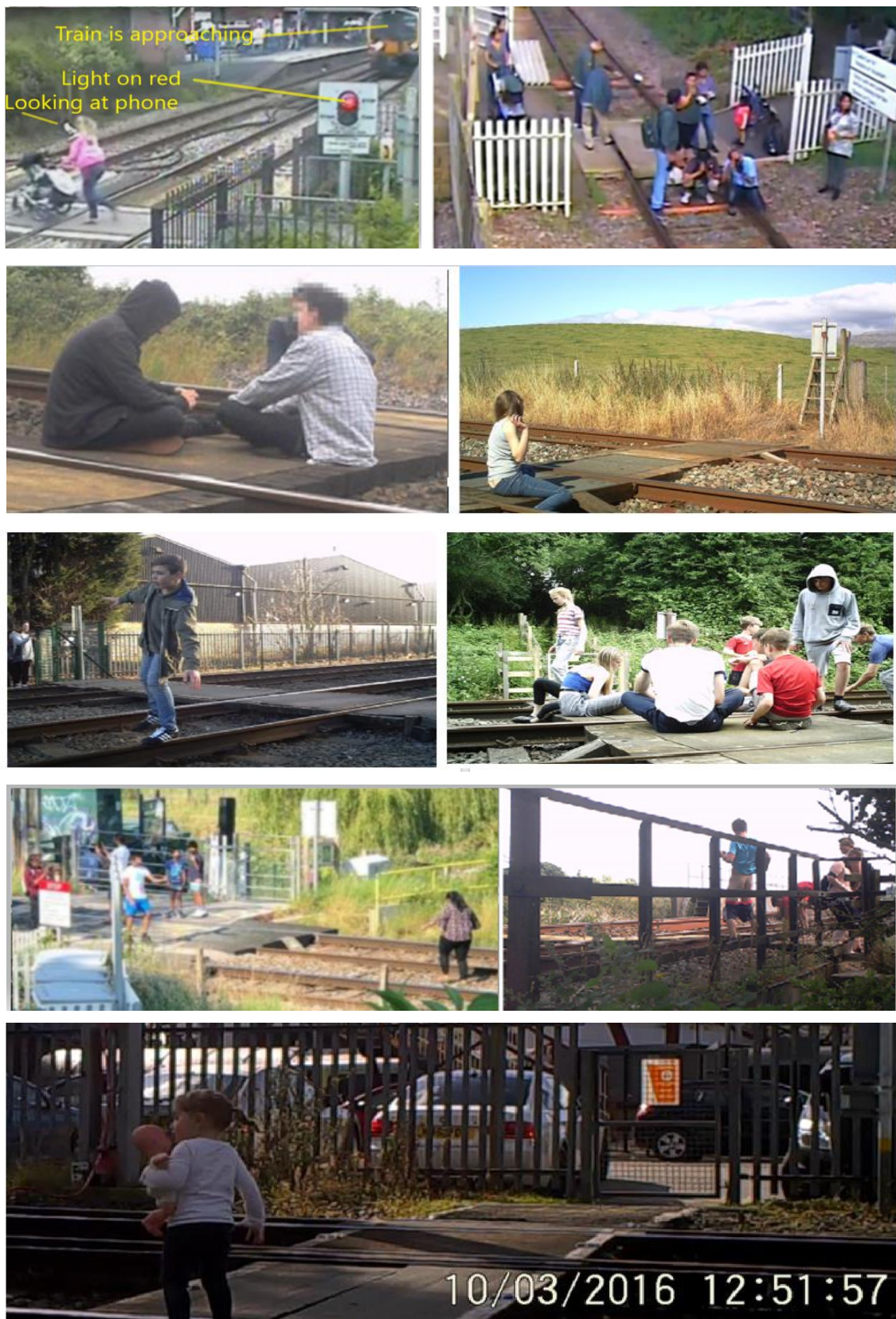
- 8.15 The first, taken from the second train's forward-facing camera, shows the first train passing over the crossing. It then shows the cyclist walking over the crossing into the path of the speeding train, which he neither sees, nor hears. The final photo is taken from the rear of the first train after it had passed the cyclist. It captures the second train,

then upon the crossing, when the cyclist remains unaware of it until the very last moment, when he managed to pull back and only just avoid being struck.

- 8.16 The RSSB also highlights in its publication, 'Level Crossing Digest Issue 4' (at paragraph 4.2): *"Variations in train speeds can lull crossing users into thinking they have more time to cross than may actually be the case. Problems can arise on mixed traffic lines, where fast expresses and slower freight services share the same line of route, or on routes where trains either stop or don't stop at nearby stations."*
- 8.17 This risk has also been referenced by the Inspector in her Order Decision relating to Penny's Crossing (at paragraph 42): *"The variations in speed difference between the InterCity trains and freight trains is at least 50 mph. This makes it more difficult for path users to judge the speed of the trains. The freight trains can also take over a minute to pass through Penny's Crossing which can make path users impatient. I consider this speed variation could pose a risk to public safety."* This would also be true of the Crossing, noting the comparatively slower speed of stopping services that are accelerating or decelerating on their approach to the crossings, prompting users to wrongly believe they may easily cross in front of the slow-moving train.
- 8.18 When travelling as part of a group, it is not uncommon for individuals to merely 'follow on', paying little or inadequate attention to their surroundings and following the group leader. This has proven to be particularly problematic at footpath crossings on routes used often by ramblers, children, and even cyclists.
- 8.19 The photographs, below, show irresponsible group use, amounting to misuse, of level crossings by cyclists and pedestrians, with no reasonable appreciation of the danger to which they are exposed.



- 8.20 Network Rail also holds a significant amount of photographic evidence of youths, whether alone or in groups, openly standing by, or on, level crossings, sitting on the deck, walking up and down the rails, or chasing each other, as well as playing 'chicken' with approaching trains (i.e. running out in front of approaching trains at the last minute). Detailed censuses at public footpath level crossings near residential developments have also demonstrated a trend in risk-increasing behaviour, e.g. of youths congregating at level crossings.



- 8.21 For example, on 13 December 2014 a 16-year-old girl was struck by a passenger train while sitting on the deck of Hipperholme crossing, Halifax, with her friend in the very early hours of the morning and during the Night-time Quiet Period. The girl was reported to have been listening to a mobile device with a friend and was not expecting trains to be running. she neither heard nor saw the approaching train.

9 VULNERABLE and ENCUMBERED USERS

- 9.1 Our policy and strategy document *‘Enhancing Level Crossing Safety 2019-2029’* identifies risk mitigation for level crossing users who are identified as ‘vulnerable’ or ‘encumbered’ (see pages 28 and 31). In addition, ORR’s *‘Principles for managing level crossing safety’* (which has been implemented as policy, since July 2021) highlights the need to understand, most broadly and practically, the material characteristics of all level crossing users and in order to ensure that all foreseeable hazards faced by them, are accounted for and mitigated satisfactorily (see Section 3).
- 9.2 I understand that ‘vulnerable use’ – a concept utilised by Network Rail as an authoritative means of assessment of level crossing risk, and which is comprehensively endorsed by the rail industry and by the Secretary of State (and appointed Inspectors) – has been considered by Mr. Aston, including in respect of his assessment of whether the Crossing is ‘compliant’.
- 9.3 Mr. Aston’s assessment of the future risk posed to vulnerable users of the Crossing were it to be re-opened, includes (but is not limited to) persons who are comparatively less mobile and/or who share protected characteristics, those who are less cognizant of safety risk, as well as those who may demonstrate greater mobility but who nevertheless behave in a hazardous manner around or on a level crossing.
- 9.4 It is also common for persons who are characterised as ‘vulnerable’ users not to personally view themselves as so, because they subjectively view themselves as fit, active and generally alert to level crossing danger. Nonetheless, the objective characterisation of such persons as ‘vulnerable’ within the specific and expert context of level crossing safety, is justified.
- 9.5 Another area of vulnerability is the ‘encumbered’ user; this is a person who may not be characterised as a vulnerable user, but for being temporarily impeded in their use of a level crossing by virtue of other factors or means, because the user is carrying an encumbering item (such as a heavy bag) or pushing an item (such as a buggy or bike) or leading a horse.
- 9.6 Moreover, it is common for many pedestrians to be wearing head-obscuring clothing and/or earphones/headphones, or to be distracted by use of a mobile phone, as to mean that they cannot adequately see or hear an approaching train, or pay the required level of attention to their immediate surroundings when using the level crossing.
- 9.7 Many users who walk/lead a dog (or multiple dogs) demonstrate the characteristics of vulnerable use. Dogs walked off-lead can prove an extremely hazardous and unsafe use of a level crossing. Dogs will not uncommonly run onto the track, with their owners trying to follow, even if momentarily only. In many cases, the dog owner’s focus of concentration will significantly be on their dog rather than on their immediate surroundings, so exposing them to increased risk. Separately, walking a dog on-lead may also give rise to vulnerable use. Dogs that are walked on a short (not extended) lead may be perceived to be relatively under control, but dog behaviour remains less than predictable. This may be especially so should a train enter into view. In many cases, the dog may itself become a source of distraction, and pull upon approach by

other oncoming walkers from the opposite direction. This may cause considerable distraction to users.

- 9.8 The photograph below is taken from a high-speed intercity train's forward-facing camera as it passes over a level crossing, at 100mph. Despite the crossing being fitted with Miniature Stop Lights (which are on 'red') it shows the train just 1 second from the crossing with the man and his dog immediately in front of it. The pedestrian who crossed contrary to the red light (whilst another pedestrian waits) has not seen the high-speed train. At the very last moment, when the man's dog was between the tracks, the man first became alert to the train. He survived, but his dog was killed.



- 9.9 Horses walked over a level crossing are very powerful animals. They may easily pull away from the rider should it become frightened when being walked across – either by an approaching train or another pedestrian, on approach from the opposite direction with (say) a dog. Not only would the horse be a danger to those stood on the level crossing, but a horse also has the capacity to act in a hazardous manner. A horse is capable of derailing a train, if struck head-on.
- 9.10 Inspector Tregembo correctly observes in her Order Decision in respect of 'Penny's Crossing' (at para 41): *"The crossing is primarily used by dog walkers and the Rail Accident Investigation Board advises that a high proportion of fatalities at level crossings involve pedestrians with dogs. I am satisfied that, given the number of dog walkers and vulnerable users, the crossing times are marginal and would be a risk to public safety."*

10 OTHER ORDER DECISIONS

- 10.1 Whilst appreciating the individuality of site-specific circumstances, the Inspector may be assisted by the approaches consistently and correctly adopted by Inspectors in earlier TWA Order and non-TWA cases, involving the extinguishment of rights of way over analogous level crossings, within the additional context of alternative routes and connectivity, and comparative safety, etc.
- 10.2 The following order decisions provide just a few of many example decisions in which Inspectors have balanced the advantages and disadvantages, as promoted by all parties:
- (a) *Kings Mill No.1* – Land Acquisition and LC Closure Order under ss.1 & 5 Transport & Works Act 1992 (**Appx JG8**)

- (b) *Great Missenden*: s257 Town & Country Planning Act 1990 (ROW/3259830) (**Appx JG9**)
- (c) *Darkies*: East Burton Dorset County Council (Footpath 14, Wool at) Rail Crossing Extinguishment Order 2018 (**Appx JG1**)
- (d) *Mountsorrel*: Leicestershire County Council Public Bridleway 120 (Part) Parish of Barrow Upon Soar Rail Crossing Extinguishment Order 2017 (**Appx JG10**)

Kings Mill No.1

- 10.1 The main reason Network Rail pursued closure of Kings Mill No. 1 level crossing was in order to address safety risk, following on from a fatality in 2012, NR assessed that despite improvements to crossing infrastructure, it was regarded as high risk. The proposal was for a ramped bridleway bridge, in substitution.
- 10.2 The Secretary of State noted that the Order would confer powers on Network Rail for the compulsory acquisition of land and to use land temporarily in connection with the proposals. He was satisfied that the powers granted by the Order for rights to acquire land compulsorily and to use land temporarily were legitimate, and of a compelling case in the public interest. Also, for the purposes of section 5(6) of the TWA, the Secretary of State was satisfied that, in relation to the public rights of way that would be extinguished, an alternative right of way was provided (Para 11). There were no objections to the Order.

Great Missenden Order Decision

- 10.3 At Great Missenden, the development of a cycle path and footpath adjacent to the railway would impose additional risk onto a public footpath level crossing.
- 10.4 First, in addressing operational efficiency, Inspector Behn Dip MS MIPROW commented at OD 16: *“Whilst ensuring safety of the public is a priority to Network Rail, the operational efficiency that would be affected if there were an incident, near miss, or trespass, is also a material factor in their rationale for closing the crossing.”* She concludes at para 33: *“Both public safety and operational efficiency of the railway are issues that are in the public interest and hold some weight when considering the rationale and merit of the Order.”*
- 10.5 On the diversion route, which was considered by the objector to be considerably longer and a much less pleasurable, whereas the shorter route to be stopped up offered ‘commanding views’ and was an enjoyable walk across open fields, the Inspector agreed. The Inspector however thought that whilst much longer, it was not substantially unsuitable for the type of recreational walks being undertaken (See OD 20). In addition, she agreed it was not as enjoyable; but that it did provide a safe green route for all users, providing easy access, without limitation.
- 10.6 In concluding *“Both public safety and operational efficiency of the railway are issues that are in the public interest and hold some weight when considering the rationale and merit of the Order”* and that *“The quite apparent disadvantage of the diversion route is that it is significantly longer... the additional time and distance would likely represent a proportionally small increase in overall journey time... There is comparatively greater public benefit in enabling the development to take place, providing a safe, easily*

accessible route by foot and on bicycle without the need to negotiate the limitations of the current footpath.” (See OD 33-35).

Darkies Order Decision

- 10.7 Inspector Elliot in his *Darkies Order Decision* recognised that: *“Network Rail is a regulated statutory undertaker bound by a statutory framework with a legally prescribed duty and responsibility to promote safety, improve railway efficiency and to enhance and improve the network in operational terms,”* the Inspector correctly concluded that *“Network Rail’s need to comply with its operating licence, which extends to those who use level crossings, in addition to those who may misuse those crossings or trespass onto the line.”* He stated (at OD 88): *“Bearing this in mind the requirement, under the terms of a licence, to provide for public safety is also in the interest of the public”* such that it features as an important part of the overall expediency balancing exercise.
- 10.8 When determining the balance for closure, and in acknowledging Network Rail’s need to promote operational efficiency, he stated (at OD 89) *“... there have been no known fatalities at the crossing and the NRA 2018 records that no safety events had been known to occur in the previous 12 months. However... ..continued use of the crossing will fail to promote operational efficiency and safety. Should an incident occur at the crossing then any temporary speed restrictions or line closure would result in delays to train services and the potential for timetable disruption.”*
- 10.9 I do not consider the position to be dissimilar, or materially so, in respect of the Crossing. The Crossing has been assessed by Mr. Aston to be demonstrably unsafe and is temporarily closed under a TTRO, thereby removing the risk to public user and complying with Network Rail’s statutory requirements and its Licence. In conjunction with proposed closure, is the provision of the new, replacement footbridge with lifts and the creation of the new bridle route running in parallel with the railway leading to a safe and convenient crossing point of the railway. Further to the inherent safety benefits, will be improved operational efficiency which arises from preventing delays being caused to existing services passing over the Crossing.

Mountsorrel Order Decision

- 10.10 Mountsorrel was also a Bridle Crossing which was ultimately closed without the provision of a new bridle bridge or alternative diversion, although many options were considered. The proposed diversion was along existing carriage roads for a distance in excess of one mile, for equestrian users. Objections had been received, asserting an increased risk to horse riders being required to alternatively use connecting roads, and around parked cars (on-street; on either side of the road).
- 10.11 Regarding the extinguishment component of this decision, Inspector Yates BA (Hons) MIPROW noted (at OD36) *“The shortest distance in order to travel between the north and south sides of the crossing by an alternative route is around a mile... Cyclists and equestrians travelling northwards have to ride along Sileby Road, South Street and Melton Road before joining [Bridleway] I20...”* On safety of the alternative route he stated, at OD40: *“I consider the issue with horse riders and cyclists to be less about the extra distance required to connect with the bridleway network and more to do with the need to ride for a greater distance on public roads, which I address below.”* He continued

at OD42: *“Whilst riders will have to ride on roads elsewhere as part of a riding circuit, the closure of the crossing would lead to horse riders and cyclists having to ride a greater distance on roads... The issue of cyclists and horse riders using the local roads needs to be compared with the alternative of traversing the crossing...”* and continuing at OD55: *“On the basis of the information provided to me, I find that there is no reasonably practical alternative means of crossing the railway in this locality to warrant the recommendation that a bridge or tunnel Order should be made.”*

- 10.12 Regarding the discussion on the bridging option, the Inspector accepted the reasons which rendered it impracticable to construct a bridle bridge; commenting at OD49: *“In my view, this [a stepped footbridge] is the most viable option for the provision of a crossing of the railway. However, a footbridge by itself does not take account of the needs of cyclists or horse riders. The impact of a bridleway bridge in this location would again be greater...”*
- 10.13 Moreover, at OD56 he stated: *“I have concluded that the crossing poses a significant risk to the safety of the public and the evidence of NR is supportive of there no practical means of making the crossing safe. The alternative route available will be less convenient to the public than proceeding directly across the railway lines but this has to be balanced against the safety of the crossing. Further, I am not satisfied that there is a reasonably practical alternative means of crossing the railway lines that would make provision for all types of users.”*
- 10.14 At Tackley, I am aware that there is insufficient room to accommodate the footprint of a ramped bridge, and to accommodate pedestrians and (to an extent) cyclists. The proposed new station footbridge will provide an alternative that is considered to be convenient.
- 10.15 In Mountsorrel, it seems evident that this Inspector considered that a long ride along a carriageway for the (average of) 2 horse riders/day (in contrast to 1, at Tackley) imports less risk than crossing a main line railway level crossing. The Inspector concluded on this point, at OD paragraph 43: *“The issue of cyclists and horse riders using the local roads needs to be compared with the alternative of traversing the crossing. As outlined above, the present crossing poses a significant risk to the public, and this particularly applies to vulnerable users such as cyclists and horse riders. It is apparent from the census material that there was little use of the crossing at the time by horse riders. Whilst some people such as Mrs Allen may be prepared to use the crossing with a horse, other people were for the most part deterred from doing so.”*
- 10.16 The Inspector also comments at paragraph OD51: *“In terms of proposals to create a replacement bridleway link, the British Horse Society favoured a new route parallel to the northern side of the railway on land outside of the control of NR. Mrs Allen spoke in favour of a bridleway link .”* The BHS here considered that it was acceptable to create a diversionary bridleway running in parallel with the railway boundary fence.
- 10.17 Regarding the further issue of insufficient sighting of approaching trains, the Inspector also acknowledged concerns in respect of vulnerable users, including (but not limited to) horse riders, dog walkers and people with mobility difficulties. At OD paragraph 21 he states: *“It is clear the available sighting distances pose a greater risk to vulnerable*

users. I find this to be a matter of significant concern. NR also points to the diverse speeds of trains leading to problems in a user appreciating how far an approaching train is away.”

Conclusion from other Closure Orders

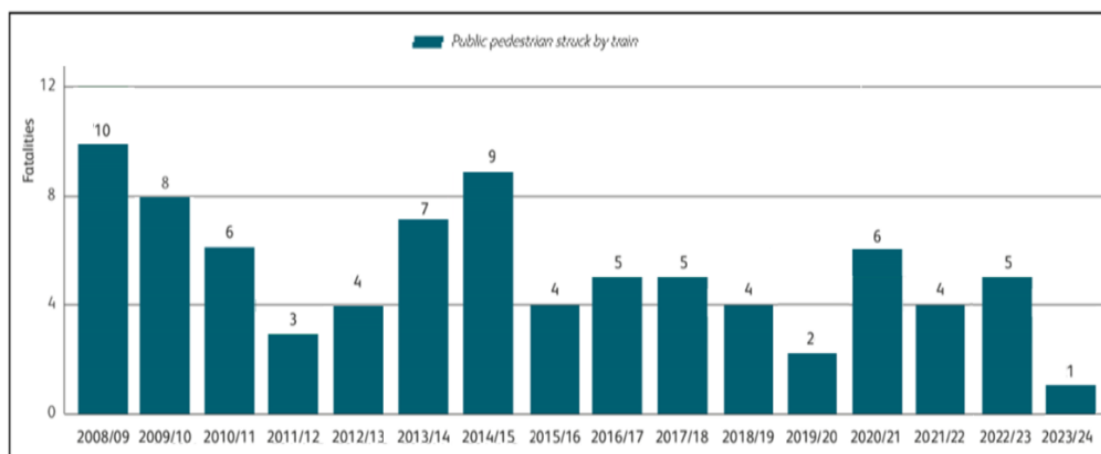
- 10.18 In having very carefully reviewed the evidence for the above Order Decisions in each case, it can be observed that the Secretary of State and/or Inspectors found for confirmation upon finding that the promotion of both level crossing safety and operational efficiency, were very important factors.

11 FATALITY & ‘NEAR MISS’ INCIDENTS

- 11.1 Through its professional commitment, Network Rail is able to demonstrate a strong safety record in respect of level crossing use. This is partly attributable to Network Rail’s adoption of a proactive, rather than reactive, approach. However, fatal and near miss accidents at level crossings still occur. Mr Aston refers to the fatality at the Crossing and to several (very) near miss events.
- 11.2 The fatality at the Crossing was investigated in its Rail Accident Report 09/2009. At about 15:16 hrs on 31 March 2008, a train travelling from Dundee to Bournemouth struck and fatally injured a pedestrian at the Crossing. The pedestrian was using the crossing to reach the south-bound platform with the intention of catching a local train to Oxford. The train, travelling at 90 mph, sounded its horn on the approach to the Crossing but it fatally struck the pedestrian. The RAIB investigation identified that the immediate cause of the accident was the pedestrian stepped onto the Crossing and into the path of the train. Possible causal factors were the pedestrian mistaking a fast train for the stopping service which was due at about the same time, or being unaware of the train’s approach. **(Appx JG11)**
- 11.3 The near miss event that was the catalyst for requesting the TTRO related to two passengers who had alighted from a train stopped at Platform 2, who opted to cross in front of it whilst it was still stationary. Knowing that the train was ready to depart they kept watching the train whilst crossing. However, they did not look in the opposite direction from which a train travelling at linespeed was approaching.
- 11.4 Six other near miss events that Mr. Aston records in his Impact Risk Assessment, could also all have so easily resulted in a fatality. The risk of fatality was therefore considered to be unacceptable, were the Crossing to remain open.
- 11.5 The RSSB records that 77% of all accidental level crossing fatalities involve pedestrian users, with the remaining 23% made up by vehicle occupants (drivers and passengers).
- 11.6 During 2023-24 there was 1 accidental death at a footpath or bridleway level crossing confirmed (not including those still under investigation or awaiting coroner’s verdicts or those suspected as suicides).
- 11.7 The last confirmed pedestrian fatality occurring on one of Network Rail’s level crossings was on 04 August 2023 on Southern Route, the driver of the London Charing Cross to Hastings train reported, after just leaving Stonegate Station in Sussex, the train was

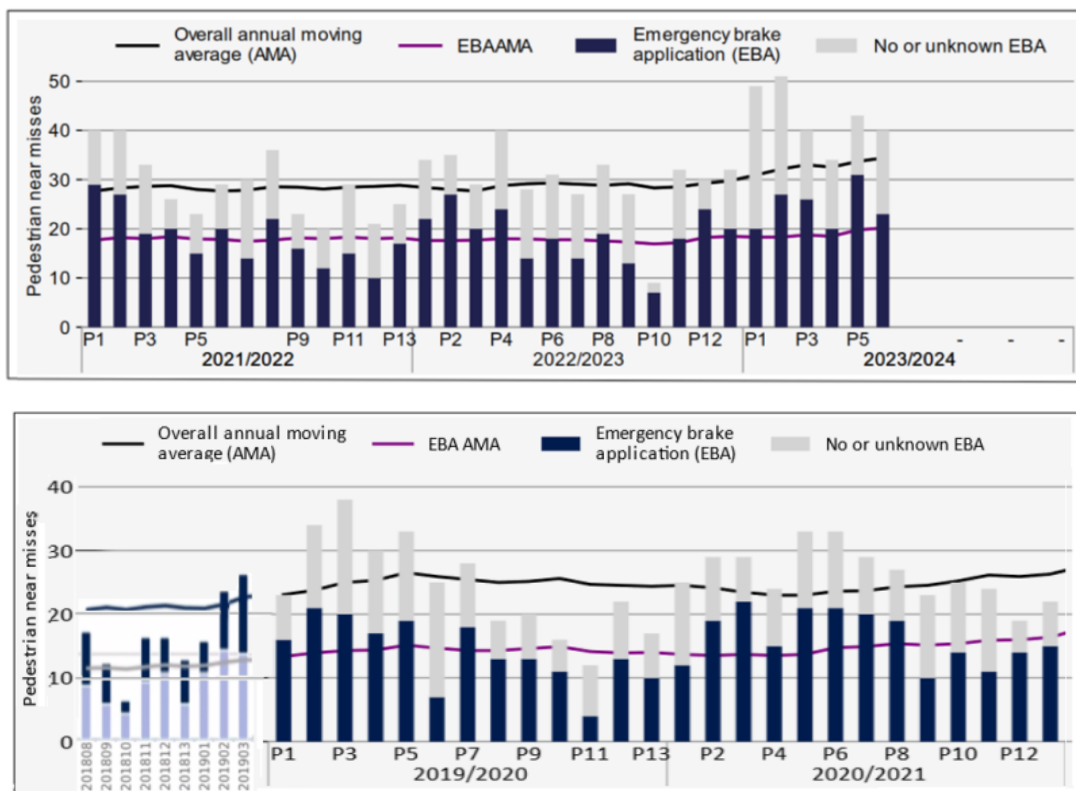
travelling at 70-75mph when he saw a female pedestrian walking across the level crossing. He sounded his horn and the pedestrian started to run clear; although he applied the emergency brake the train fatally struck the pedestrian.

- 11.8 In 2022-23 five fatal accidents occurred. Of those, on 19 September 2022 at Darby Green on Wessex Route, the driver of the Redhill to Reading service reported that just after just leaving Blackwater Station, whilst powering up towards the crossing, he saw an elderly woman walk onto the crossing. The train was at 30mph. The driver sounded the horn, but the female did not look up and continued walking over the crossing. The emergency brake was applied but the train struck the elderly lady.
- 11.9 On 21 April 2022 an elderly lady and her dog were fatally struck by an empty coaching stock train at Lady Howard footpath crossing, Ashted in Surrey. The train involved was travelling at 62 mph. Another train had passed over the crossing in the opposite direction immediately before the accident occurred.
- 11.10 Four accidental deaths were reported in 2021-22; 2020-21 saw 6 fatalities, up from 2 in 2019-20. During 2018-19 the number of fatal accidents was 4 (all figures excluding suicides). Over the preceding 10 years, RSSB records the number of pedestrians (including cyclists) killed at level crossings, excluding suicides, as follows:



- 11.11 These figures could have been much worse with a sharp increase in ‘near miss’ events with pedestrians also being recorded. Alarmingly, over the past 5 years, there has been a worsening trend of (reported) ‘near misses’ involving non-vehicular users. Ian Prosser, CBE ORR’s HM Chief Inspector of Railways stated in a media release September 2021: *“It is unfortunate that despite fewer trains running on the network in the last year we have seen an increase in the number of deaths at level crossings.”*
- 11.12 Network Rail continues to see the number of reported non-vehicular near miss events to be regularly over 30 each month. It is the highest level of consistent period on period near miss events since reporting began in 2009/10. Ian Prosser also stated during his press release: *“I remain concerned about the increase in near misses with trains that often pass through at very high speeds. This past year we have seen shocking CCTV footage of reckless behaviour at level crossings and I cannot stress enough the danger people are putting themselves in when not using a crossing safely.”*

- 11.13 Near misses with pedestrians is high, and climbing, with 117 events recorded in Q2 of 2023/24. In addition, the number of pedestrians crossing when unsafe at level crossings continues to rise. RSSB advises that due to societal changes because of Covid-19, the usage profile at level crossings is thought to have changed while the overall numbers of users have increased. It is thought that this may be leading to the increase in incidents as train services return to pre-pandemic levels, but new behaviours remain in place and the annual moving average of near misses with pedestrians are increasing:



- 11.14 The chart above, provides an insight into when the Emergency brake was applied, or would have been applied given more time (shown as Emergency brake application (EBA in the chart). This indicator provides a more objective view of the trend in near misses, and on average, the reported number of incidents equates to a near miss occurring somewhere on the network every single day. This also does not take account of those near misses that have not been reported.
- 11.15 There are strong examples that can be cited to demonstrate high risk from ‘near miss’ events. One that involved a ‘protected’ SPC was considered to be so severe that it resulted in the RAIB undertaking a Rail Accident Report¹². On 19 May 2022 (at 08:20), 144 people were waiting on the east side of the railway to use the footpath level crossing at Farnborough North station. Pedestrian gates on each side of the crossing were locked until a train had departed from the station. The level crossing users had arrived on this train and were mostly young people. Many were perceived to be knowledgeable/frequent users of the station and normally had to wait before crossing the railway to continue their journey to school or college.

¹² [Report 04/2023: Near miss at Farnborough North footpath LC](#)

- 11.16 After the train departed, miniature stop lights at the crossing changed from red to green and the audible warning ceased, indicating it was now safe to cross the railway. A crossing attendant, located in a cabin next to the crossing on the east side, responded by remotely unlocking the pedestrian gates at both ends of the crossing. The person at the front of the queue opened the gate and the group started to cross the railway. However, each person thereafter, held the gate open for the following person.
- 11.17 When around half the group had crossed, the MSLS changed to red and the audible warning commenced, indicating that another train was approaching. The crossing attendant turned to lock the gates, but crossing users continued to pass through the gate, wrongly holding it open, forcing the crossing attendant to then leave the cabin and directly intervene in order to ensure the gate could be closed (late). The driver of the approaching train from around a bend in the track saw people on the crossing ahead and applied the train's emergency brake and sounded the horn. Thankfully, the crossing was clear before the train passed over it.
- 11.18 This occurred at a controlled SPC, with interlocking gates and MSLS; yet this deliberate misuse could well have resulted in fatality, if not for the quick intervention of the attendant. The Crossing at Tackley had been an uncontrolled crossing and as such, if the same did occur at Tackley, even though passenger numbers were much lower than at Farnborough, there would have been no attendant in order to intervene.
- 11.19 Separately, below is a recent example of (presumably experienced) walkers dangerously crossing the railway at a foot crossing located between Shoreham and Otford, Kent, in July 2020. The train sounds its horn at the stage shown in the 1st photograph.



- 11.20 The horn would have been heard by the walkers before they crossed the railway at the crossing. Approximately 5 seconds later as it rounds the bend, the driver sees the walkers on the crossing. Only 4 seconds from the crossing, the walker (right) is shown to sprint over the lines despite seeing the fast-oncoming train and clears the train less than 1 second from being struck.



- 11.21 The only reason he survived was because the train driver hit his emergency brakes. The Blackfriars to Sevenoaks Thameslink service involved in the incident had been so close to striking the last pedestrian, that the train driver left his cab after it had stopped, and walked back along the line, in order to ensure they were physically unharmed.
- 11.22 Only a few days later, a similar incident at nearby Seal (also in Kent) saw another driver forcibly apply his emergency brakes as a woman ran across, directly in front of his train.
- 11.23 The RSSB informs that a well-established relationship between level crossing accidents and near miss events. Near miss data is important to Network Rail's expert understanding of level crossings where a more serious accident may happen. Evidence is held from all level crossing accidents that demonstrates there is a clear relationship between the number of near miss events and the number of collision accidents involving a train and either a pedestrian or vehicle. The more near miss events that occur, the more likely a fatal or injurious accident will occur.

Further Rail Accident Investigation Board Investigations

- 11.24 In highlighting the cause of level crossing fatalities, with recommendations, the RAIB has investigated 20 of the many fatal incidents involving pedestrians at level crossings on main line railways since it became operational in October 2005, including Tackley, and up until the Lady Howard accident in 2022. A broad section of accidents include:
- 11.25 RAIB Incident Report 08/2010¹³: Fatality at Fairfield PFP Little Bedwyn 06-05-2009. A local resident and frequent user was struck and fatally injured whilst walking her dogs. It was thought that she may have been distracted when she approached the crossing and in making her decision to cross the line by the presence of her dogs.
- 11.26 RAIB Incident Report 15/2012¹⁴: Fatality at Gipsy Lane PFP LC Needham Market 24-08-2011. A pedestrian was fatally injured on Gipsy Lane footpath level crossing at Needham Market. On seeing the pedestrian on the crossing the train driver sounded his horn, but the pedestrian continued to cross and was struck by the train. The report concludes that she moved from the adjacent line into the path of the train because she either did not see the approaching train, she misjudged the speed of the train, or she believed that the train was approaching her on the line she was standing on. Also, for vulnerable users, the warning of an approaching down line train was not sufficient to enable them to use the crossing safely. the warning time for the approach of down trains was insufficient.
- 11.27 RAIB Incident Report 18/2014¹⁵ – Fatality at Barratts Lane No2 PFP 26-10-2013 A pedestrian was struck and fatally injured by a train. The train was travelling from Nottingham towards Birmingham, at the same time, a London to Nottingham train was slowly approaching the crossing from the other direction. It is likely that the pedestrian had concentrated her attention on the first train only, and did not notice the 2nd train approaching from the opposite direction. The front-facing camera from the London to Nottingham train showed the pedestrian approached the crossing and waited at the

¹³ [RAIB: Fatal accident at Fairfield level crossing](#)

¹⁴ [RAIB: Fatal accident at Gipsy Lane footpath crossing](#)

¹⁵ [RAIB: Fatal accident at Barratt's Lane No.2 footpath crossing](#)

gate for 17 seconds before opening it, before crossing 9 seconds later (the train was stopped at a red signal for part of this time). It is also probable that, having seen the London train had stopped at the signal, the pedestrian waited until she had determined that the train was not moving before deciding to cross the line. However, the pedestrian started to cross the line as the 2nd train was approaching from the opposite direction (paragraph 26). It is likely that the pedestrian was distracted by the presence of the first train standing at a nearby signal (paragraph 33).

- 11.28 RAIB Incident Report 23/2016¹⁶: Fatality at Grimston Lane PFP LC 23-02-2016. The train driver reported striking a person at Grimston Lane Footpath level crossing, Essex (Anglia) on the single line between Trimley and Thorpe Lane. The man appeared to see the train, acknowledged the trains signal, but stepped out to cross. He was unable to fully reach a position of safety before the train struck him.
- 11.29 The RAIB concluded that he was either unaware of the train at the time he decided to cross, because he did not look, or that he misjudged the time he needed. The age and health of the pedestrian meant that he fell into the category of people considered, by Network Rail's guidance, to be 'vulnerable users'.
- 11.30 RAIB Incident Report 13/2019¹⁷ – Fatality at Tibberton No. 8 PFP LC 06-02-2019. At 09:58 a passenger train struck and fatally injured a pedestrian at a passive footpath crossing. The foggy weather conditions had made the level crossing unsafe to use.
- 11.31 The pedestrian had seen a train approaching in one direction, waited for it to pass and then started to cross. However, with the foggy conditions and the first train moving away, the pedestrian was unaware of the 2nd train approaching, and he started to cross the railway when there was insufficient time for him to reach a position of safety on the other side of the railway. He walked directly into the path of the speeding train.
- 11.32 The above provide examples of some of the fatalities that RAIB has investigated and determined the cause. I would also be able to identify and highlight many more incidents both investigated and not investigated by RAIB, in comparison with the circumstances at level crossings, where a fatality has occurred through an error of judgment by the pedestrian, and which has regrettably resulted in fatality.

12 CONCLUSION

- 12.1 The above overview of policy and standards relating to level crossing safety and railway operational efficiency, is properly to be viewed against the background of the various obligations and responsibilities provided for by the governing statutory framework and Licence. Together, this compliments Network Rail's considered and expert assessment of safety risk- and operational efficiency-related considerations as they arise in relation to the Crossing, in particular. In respect of the Crossing, Network Rail remains committed to fulfilling its obligations and responsibilities, as overseen by the ORR and wider rail industry.

¹⁶ [RAIB: Fatal accident at Grimston Lane level crossing](#)

¹⁷ [RAIB: Fatal accident at Tibberton No. 8 footpath crossing](#)

- 12.2 It is my clear opinion that the proper application of all relevant policy, standards, the Licence, and governing statute, strongly reinforces the case being made for the closure and removal of the Crossing, pursuant to the Order.

13 WITNESS DECLARATION

I have declared as follows:

- 13.1 This proof of evidence includes all facts which I regard as being relevant to the opinion that I have expressed, and that the Inquiry's attention has be drawn to any matter which would affect the validity of that opinion.
- 13.2 I believe the facts that I have stated in this proof of evidence are true and that the opinions expressed are correct.
- 13.3 I understand my duty to the Inquiry to help it with the matters within my expertise and I have complied with that duty.



Jerry Greenwood

Head of Liability Negotiation, Network Rail

Dated: 16 May 2024