

## TRANSPORT AND WORKS ACT 1992

## THE TRANSPORT AND WORKS (INQUIRIES PROCEDURE) RULES 2004

## THE NETWORK RAIL (CAMBRIDGESHIRE LEVEL CROSSING REDUCTION) ORDER

## STATEMENT OF CASE FOR THE APPLICANT NETWORK RAIL

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## Introduction

## Purpose of this Statement

1. On 14 March 2017, Network Rail Infrastructure Limited (Network Rail) submitted an application for the Network Rail (Cambridgeshire Level Crossing Reduction Order) (the Order) to the Secretary of State for Transport. Through this Order, it is proposed to close or downgrade a number of level crossings across the county as part of a Network Rail programme to reduce risk on the railway. The proposals include the acquisition and use of land in connection with these changes, the construction of works, the extinguishment of existing public and private rights of way across the track and the creation of alternative public rights of way and other rights in land.
2. Network Rail owns and operates the national rail infrastructure of Great Britain (the network). Network Rail therefore has a key role to play in railway safety and improving railway performance and efficiency. Network Rail's purpose is described in its Network Licence: to secure the operation and maintenance of the network; the renewal and replacement of the network; and 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 reasonable requirements of persons providing services relating to railways and funders, including potential providers or potential funders, in respect of the quality and capability of the network; and the facilitation of railway service performance in respect of services for the carriage of passengers and goods by railway operating on the network.
3. This application for the Order was made under sections 1 and 5 of the Transport and Works Act 1992. A copy of the application and the documents submitted with it, including the associated request for deemed planning permission, are listed in Appendix A, numbered NR01 to NR12 inclusive. The application was the subject of publicity and notices as required by the Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006 ("the 2006 Rules").
4. As summarised above, the purpose of the Order is to close or redesignate the status of a number of level crossings in the County of Cambridgeshire. The Order authorises Network Rail to construct a number of Scheduled works comprising the construction of footbridges and a bridleway bridge to carry new public rights of way over drains or watercourses. The Order also authorises the carrying out of other works including the removal of the crossings as well as the diversion or redesignation of the status of certain public roads, footpaths, bridleways, restricted byways or byways open to all traffic and the creation of new rights of way in substitution. The Order would permit Network Rail to acquire land and interests in land, including its temporary occupation, in connection with the construction of the works.
5. Objections to, and representations about, the proposed Order were invited to be made to the Secretary of State until 25 April 2017. The Department for Transport (DfT) has received 4 letters of support, 3 representations and 51 objections. As a consequence, and in accordance with the Transport and Works (Inquiries Procedure) Rules 2004 (the Inquiries Rules), the Secretary of State for Transport announced on 18 May 2017 his intention to hold a public local inquiry into the application. The Inquiry is proposed to take place in November 2017.
6. The Inquiries Rules require Network Rail to provide a Statement of Case. This document is Network Rail's Statement of Case for the purpose of the Order application and it contains full particulars of the case Network Rail intends to make at Inquiry in support of its application. It will describe the risk, cost, and operational ramifications of different kinds of level crossings, the consequences of incidents, and the case for their removal from the network. It will then take each site in turn, describing current usage of the crossing, the proposal, the impact on users, and the risk.
7. In Appendix A is a list of the documents to which Network Rail intends to refer or submit in evidence at the Inquiry. These documents will be available for public inspection at the locations and times set out in Appendix B.
8. In this Statement of Case, references to documents included in Appendix A are shown in bold.
9. This Statement of Case is arranged as follows:

- An introduction to level crossings and safety
- Operational issues relating to level crossings
- Project context, Transport and Works Act Orders, and funding
- Objections and Representations
- Level crossings affected by the Order and consideration of objections
- Conclusions


## Level Crossings and Safety

10. This section will describe the risks arising from level crossings; the different types of crossing; some of the processes, staff and costs involved in managing crossings; and the cost of maintaining them. It will also consider the general impact of level crossings on proposed enhancements to services.
11. Network Rail is legally responsible for safety on and around the railway, including at level crossings. This means that where the highway and rail networks interface, Network Rail is required to protect both the public using roads or public rights of way from the dangers of the railway, and users of the railway network, so far as reasonably practicable.
12. As is recognised by the Office of Rail and Road (ORR), Great Britain's level crossing safety record is among the best in the world, but every incident has the potential for significant human and economic loss. Level crossings are the single biggest source of catastrophic risk on the railway. The ORR agrees with Network Rail that the closure of level crossings is the most effective way of reducing this risk, removing the interface between trains and highway users entirely. It has set itself the objective of reducing level crossing risk by $25 \%$ by 2019.
13. The ORR's strategy for regulation of health and safety risks at level crossings (NR14) makes clear that it will encourage crossing closure, and ensure that all risk assessments consider this first, in line with the principles of prevention enacted in legislation through the Management of Health at Safety at Work Regulations 1999 (NR13).
14. In accordance with its objective, Network Rail has established a long term strategy to reduce level crossing risk (NR17). Whilst closure of level crossings has been proven to be the most effective way of removing risk from the network, reduction in level crossing risk may also be achieved by enhancing level crossings, or by limiting those who are entitled to use them. Level crossing closures may also result in the reduction of operating costs and assist the scope for enhancement of rail capacity-faster and more frequent trains-in association with other schemes, furthering Network Rail's statutory duties in these respects.
15. Anglia route has 774 level crossings. That is to say, there are 774 locations where the public, landowners, contractors, passengers and/or statutory undertakers cross, or could cross, the railway on the level. As some level crossings comprise more than one set of gates or stiles, separating vehicular and pedestrian usage, and each set of gates is risk assessed separately, there are 858 level crossings recorded on the All Level Crossing Risk Model (ALRCM) system for Anglia route.
16. The risk that exists at level crossings is quantified as a Fatalities and Weighted Injures (FWI) figure. A FWI of 1.0 equates to the risk of 1 death, or

10 major injuries, or 200 RIDDOR reportable minor injuries and class 1 shock/trauma, or 1000 non-RIDDOR reportable minor injuries and class 2 shock/trauma per year. The total FWI attributable to the level crossings on Anglia route is 2.95 , which is $25 \%$ of national level crossing risk.
17. The furniture and technology at level crossings varies. Private vehicular crossings (occupation or accommodation crossings, depending on whether a road pre-existed the railway's construction) will tend to comprise latched vehicular gates and a deck to enable passage across the railway. There may also be telephones to contact the signaller and/or miniature stop lights to warn of an approaching train. Signage at the crossing provides basic instructions. The user is expected to use reasonable vigilance to satisfy themselves that no trains are approaching before they start to cross the railway. They are responsible for following instructions and for closing the gates after use. These crossings are collectively known as User Worked Crossings or UWCs. Those with telephones are known as UWCTs, or with Miniature Stop Lights, UWCMs. If there is a public right of way scheduled over the private level crossing, separate wicket gates or stiles are often provided adjacent to the vehicular gates. There are 267 UWCs (of all types) on the Anglia route.
18. Restricted byway and byway open to all traffic crossings tend to be the same as UWCs. However, they may lawfully be used by the public with vehicles, not just landowners and their invitees.
19. Public footpath and bridleway level crossings tend to have stiles, kissing gates, or self-closing gates in the railway boundary. All bridleway crossings have decks, as do most, but not all, footpaths. Telephones are occasionally provided at bridleway crossings, but only exceptionally at footpaths. Miniature stop lights may also be present. Some footpath and bridleway crossings are protected by whistle boards: train drivers are instructed to sound their horn at a set distance from the crossing to warn potential crossing users of their train's approach. Steps or ramps may be provided on railway land if there is a cutting or embankment to ascend or descend. Signage at the crossing provides instructions to users relevant to the type of crossing. Users must observe the available information at the decision point ${ }^{1}$ before deciding whether to cross the railway. These types of crossings are generally known as FPS (footpath with stile), FPK (footpath with kissing gate) or FPG/FPW (footpath or bridleway with gate/wicket gate). There are 353 footpath and bridleway crossings on the Anglia route.
20. The majority pf public road crossings have road traffic lights and barriers. The safest level crossings fence the entire road and are proved clear before a train may proceed; the protecting signal cannot be set to proceed unless the level crossing is clear. There are 57 crossings on Anglia Route which are proved clear by a signaller via CCTV and 8 which are proved clear by object

[^0]detection technology. There are also 93 automatic half barrier crossings, which do not include such proving. A few crossings have traditional gates across the road and are operated by a crossing keeper. Some public road crossings are UWCs.
21. Trains take a long distance to come to a stop. They cannot decelerate before reaching a level crossing should a driver see an obstruction. This means that being in the path of a train is an inherently dangerous place to be. It therefore follows that the highest level of protection is obtained at crossings which are interlocked with the signalling system such that a train cannot proceed towards the level crossing until a crossing keeper, a signaller, or an object detection system confirms that the level crossing is clear of users.
22. The majority of level crossings in this Order are passive ${ }^{2}$ crossings, at which users decide for themselves whether it is safe to cross the railway. Such crossings require sufficient warning of an approaching train to allow users to cross the railway and reach a position of safety on the other side. The warning is often as simple as ensuring that the sighting of an approaching train is sufficient. This requires the measurement of the available sighting from the decision point, and the calculation of the time taken for a user to reach the position of safety on the opposite side of the railway. The type of user has a bearing on the calculation of what constitutes sufficient sighting. ORR Guidance in relation to the safe use of public footpath and bridleway level crossings considers a walking speed of $1.2 \mathrm{~m} / \mathrm{s}$ should be used where the surface is at or near to rail level and $1 \mathrm{~m} / \mathrm{s}$ where the surface is at the standard profile of the ballast. The calculated time in traversing the crossing should be increased to take account of foreseeable circumstances such as impaired mobility of users, numbers of prams and bicycles or where there is a slope or step up from the decision point. A longer crossing time means that the minimum sighting of trains must be greater.
23. Crossings that rely on the sighting of approaching trains by the user can be affected by vegetation, track curvature, earthworks, mist and fog, and sun glare. They are also not suitable for those with sight loss. Additionally, for pedestrians more attuned to cars travelling at $30-40 \mathrm{MPH}$ in residential areas, able to brake easily, it is possible to misjudge the arrival time of a train travelling at up to 100 MPH which would take half a mile to come to a stand. Where sighting of approaching trains is insufficient, warning of their approach may be given by trains sounding their horns.
24. As a complex system which has developed over nearly two centuries, there are many combinations of public and private rights of way crossing the railway, and the furniture and technology associated with them. Details for each crossing in the project are provided on a site-by-site basis in the part of this Statement of Case entitled "Level Crossings Affected by the Order".

[^1]Appendix C contains a description of the furniture and equipment which is found at level crossings.

## Risk

25. Level crossings are the largest contributor to train accident risk on the network. That is to say, almost half of non-suicide deaths (or injury equivalents) on the railway network are attributable to level crossings (excluding workforce safety risks). Figure 1 shows the fatalities and injuries on level crossings.

| Year | Fatalities <br> (nationally inc. <br> Anglia route) | Fatalities on <br> Anglia route (all <br> pedestrians) | Major <br> Injuries <br> (nationally) | Minor <br> Injuries <br> (nationally) |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{2 0 1 6 / 2 0 1 7}$ | 6 (4 pedestrians) | 1 | TBC | TBC |
| $\mathbf{2 0 1 5 / 2 0 1 6}$ | 4 (4 pedestrians) | 2 | 5 | 65 |
| 2014/2015 | 10 (8 pedestrians) | 3 | 5 | 52 |
| 2013/2014 | 8 (6 pedestrians) | 2 | 5 | 51 |
| FIGURE 1: FATALITY AND INJURY FREQUENCY AT LEVEL CROSSINGS ${ }^{\mathbf{3}}$ |  |  |  |  |

26. It is widely acknowledged that closure of level crossings is the most effective way to remove the 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 (NR13), in particular the following:
(a) avoiding risks;
(c) combating the risks at source;
(f) replacing the dangerous by the non-dangerous or the less dangerous
27. It is therefore Network Rail policy to close level crossings where possible, and this is set out in the document Transforming Level Crossings 2015-2040 (NR17). It is Network Rail's objective to reduce level crossing risk by 25\% over CP5, including through closure of crossings. The Office for Rail and Road's (ORR's) Final Determination of Network Rail's funding for 2014-2019 describes the requirement to maximise level crossing risk reduction. (NR15).
28. In the nineteenth century, when the railways in Cambridgeshire were constructed, many level crossings were provided because they were the easiest form of making good the interruptions in land and public highways that resulted. The flat ground in Cambridgeshire made bridges an expensive proposition.

[^2]29. Level crossings were acceptable on a low speed steam-powered railway, but, as trains have become faster, quieter, and more frequent, there is no longer the relative safety of the 1800s and the way the public use level crossings has fundamentally changed. The law and society has rightly become more concerned with safety.
30. Consistently, level crossings are not permitted on new railway infrastructure, such as 'HS1'. The ORR's level crossing policy makes clear that no new level crossings should be authorised other than in exceptional circumstances (NR14).
31. Figure 2 shows the FWI on the network for railway passengers. It can be seen that over a third of the risk is attributable to level crossings.


FIGURE 2: FWI PER YEAR ACROSS DISCIPLINES ${ }^{4}$
32. Depending on the type of crossing, the risks that exist are to those on the train, those crossing the railway, and those working on the railway, either operating crossings or maintaining them.

## Consequences of a Fatality or a Collision

33. When someone dies at a level crossing, the emotional impacts on those directly and indirectly involved can be far reaching. Those affected include the

[^3]friends and families of the victim, the train crews, emergency services, Network Rail operations and maintenance staff, and passengers on the train. Network Rail has worked with the Samaritans to discourage suicides on the railway network, but the distress of an accidental fatality at a level crossing can be even greater.
34. In the event of a collision at a level crossing, the affected train will stop and, if the driver is able to, they will contact the signaller to request all services in the area be stopped through the signals being turned to red. If the incident involves loss of life, the scene will be declared a crime scene and it will not be possible to move any trains until the police have attended site. This can lead to delays in services of several hours. If it is not possible to move the train to its destination, there can be a need to arrange substitute road transport for passengers, which can take several hours to put in place.
35. After a collision at a level crossing, there will often be a report written by the Rail Accident Investigation Branch, with the involvement of Network Rail staff. These reports are written to establish the cause and make recommendations for the future reduction of risks. Figure 3 lists the RAIB reports since 2005 on level crossing incidents on the Anglia route:

| Crossing | Date |
| :--- | :--- |
| Incident |  |
| Dock Lane | $14 / 06 / 2016$ | Near miss | Hockham Road | $10 / 04 / 2016$ | Collision with tractor |
| :--- | :--- | :--- |
| Trinity Lane | $29 / 11 / 2016$ | Near miss with a pedestrian |
| Grimston Lane | $23 / 02 / 2016$ | Fatal accident |
| Jetty Avenue | $14 / 07 / 2013$ | Collision with car |
| Motts Lane | $24 / 01 / 2013$ | Fatal accident |
| Johnson's | $28 / 01 / 2012$ | Fatal accident |
| Gipsy Lane | $24 / 08 / 2011$ | Fatal accident |
| Hatson (White House Farm) | $25 / 09 / 2011$ | Collision with tractor |
| Sewage Works Lane | $17 / 08 / 2010$ | Collision with tanker |
| Poplar Farm (Attleborough) | $01 / 07 / 2008$ | Near miss |
| Croxton | $12 / 09 / 2006$ | Derailment |
| Bratts Blackhouse | $22 / 05 / 2006$ | Collision with car |
| Elsenham (and station pedestrian | $03 / 12 / 2005$ | 2 fatalities at station |
| crossings generally) | $19 / 10 / 2005$ | Collision with agricultural |
| black Horse Drove |  |  |

FIGURE 3: LIST OF RAIB INVESTIGATION REPORTS ON ANGLIA ROUTE
36. Through its programme of risk assessment and maintenance, Network Rail aims to ensure all its level crossings are compliant with railway standards
(NR20, NR21, NR22, and NR23) and the risk at each is as low as reasonably practicable. However, on occasions when Network Rail has failed to discharge its duty appropriately, fines imposed by courts have been severe. The largest fine to date relates to a fatality at Gipsy Lane level crossing in Needham Market, Suffolk, where an 82 year old pedestrian was crossing the line and misjudged the speed of an approaching train. Network Rail had previously undertaken a risk assessment and identified that vulnerable users were using the level crossing, but had not acted on this information by imposing a speed restriction on trains. As this was held to be the cause of the fatality, Network Rail was fined $£ 4,000,000$ by Ipswich Crown Court in 2016. The case also illustrates the inherent tension that exists in ensuring the safety of the public at interfaces between the railway and public highways, and the operational needs of a $21^{\text {st }}$ century railway network.
37. By designing the risks that exist at level crossings out of the network, mistakes like this need never be made again.

## Measurement of Level Crossing Risk

38. Risks are not equally distributed amongst level crossings. The risk at each crossing is quantified using the All Level Crossing Risk Model (ALCRM). This is a system that ranks level crossings based on factors including usage, linespeed, frequency of train service, the environment, the technology installed, and the history of incidents and accidents. It calculates the likelihood of a fatality (or injury equivalent) every year and expresses it as a Fatalities and Weighted Injuries (FWI) value.
39. Relative level crossing risk is expressed by ALCRM as a letter and a number.
40. The letter represents the individual risk with $A$ being the highest and $M$ being the lowest. Individual risk is the annualised probability of a fatality to a 'regular user', being taken as a person making a daily return trip over the crossing, assumed to be 500 traverses per year. It applies to crossing users only and not to train staff and passengers. Individual risk does not increase with the number of users.
41. The number represents the collective risk, being the risk to crossing users, rail staff, and passengers. 1 is the highest and 13 is the lowest. Collective risk considers the total risk for the crossing, including users (pedestrian and/or vehicle), plus train staff, plus passengers. Crossings ranked 1 to 3 , or with an individual risk score of $A$ to $C$ with a collective risk of 4 or 5 , are considered particularly high risk.
42. Level crossings which are currently closed or completely inaccessible are assigned a rating of M13, the lowest category of risk.
43. Figures 4 and 5, extracted from the Network Rail ALCRM User Guide (2012), describe the categorisations on Individual and Collective risk:

| Individual Risk <br> Ranking | Upper Number | Lower Number | Upper Value <br> Scientific Notation | Lower Value <br> Scientific Notation |
| :---: | :---: | :---: | ---: | ---: |
| A | 1 in 1 | Greater than 1 in <br> 1,000 | $1.00 \mathrm{E}-03$ |  |
| B | 1 in 1,000 | 1 in 5,000 | $1.00 \mathrm{E}-03$ | $2.00 \mathrm{E}-04$ |
| C | 1 in 5,000 | 1 in 25,000 | $2.00 \mathrm{E}-04$ | $4.00 \mathrm{E}-05$ |
| D | 1 in 25,000 | 1 in 125,000 | $4.00 \mathrm{E}-05$ | $8.00 \mathrm{E}-06$ |
| E | 1 in 125,000 | 1 in 250,000 | $8.00 \mathrm{E}-06$ | $4.00 \mathrm{E}-06$ |
| F | 1 in 250,000 | 1 in 500,000 | $4.00 \mathrm{E}-06$ | $2.00 \mathrm{E}-06$ |
| G | 1 in 500,000 | 1 in $1,000,000$ | $2.00 \mathrm{E}-06$ | $1.00 \mathrm{E}-06$ |
| H | 1 in $1,000,000$ | 1 in $2,000,000$ | $1.00 \mathrm{E}-06$ | $5.00 \mathrm{E}-07$ |
| J | 1 in $2,000,000$ | 1 in $4,000,000$ | $5.00 \mathrm{E}-07$ | $2.50 \mathrm{E}-07$ |
| K | 1 in $4,000,000$ | 1 in $10,000,000$ | $2.50 \mathrm{E}-07$ | $1.00 \mathrm{E}-07$ |
| L | 1 in $10,000,000$ | 1 in $20,000,000$ | $1.00 \mathrm{E}-07$ | $5.00 \mathrm{E}-08$ |
| M | Less than 1 in <br> $20,000,000$ | Greater than 0 | $5.00 \mathrm{E}-08$ | Greater than 0 |
| 0 | 0 |  | 0 |  |

FIGURE 4: INDIVIDUAL RISK RANKINGS

| Collective Risk <br> Ranking | Predicted <br> FWIs per year | Predicted <br> FWIs per year |
| :---: | :---: | :---: |
| 1 | Theoretically infinite | Greater than $5.00 \mathrm{E}-02$ |
| 2 | $5.00 \mathrm{E}-02$ | $1.00 \mathrm{E}-02$ |
| 3 | $1.00 \mathrm{E}-02$ | $5.00 \mathrm{E}-03$ |
| 4 | $5.00 \mathrm{E}-03$ | $1.00 \mathrm{E}-03$ |
| 5 | $1.00 \mathrm{E}-03$ | $5.00 \mathrm{E}-04$ |
| 6 | $5.00 \mathrm{E}-04$ | $1.00 \mathrm{E}-04$ |
| 7 | $1.00 \mathrm{E}-04$ | $5.00 \mathrm{E}-05$ |
| 8 | $5.00 \mathrm{E}-05$ | $1.00 \mathrm{E}-05$ |
| 9 | $1.00 \mathrm{E}-05$ | $5.00 \mathrm{E}-06$ |
| 10 | $5.00 \mathrm{E}-06$ | $1.00 \mathrm{E}-06$ |
| 11 | $1.00 \mathrm{E}-06$ | $5.00 \mathrm{E}-07$ |
| 12 | Less than $5.00 \mathrm{E}-07$ | Greater than 0 |
| 13 | 0 | 0 |

FIGURE 5: COLLECTIVE RISK RANKINGS

## Incidents and Accidents

44. Incidents and accidents in the use or operation of level crossings are logged, and inform the risk assessment process. Incidents generally fall into the following categories:

- Deliberate misuse
- User human error
- Rail operator human error
- Rail equipment failure
- External causes

45. Incidents at level crossings have previously been categorised generally as misuse, near misses, and accidents. Whilst Network Rail has adopted the new terminology, which is more descriptive, it does require a greater level of investigation of each incident in order to correctly ascertain the chain of causation. It is not always possible to establish this level of understanding from the records of events that occurred in previous years.
46. Across Anglia route in 2016-17, there were 567 recorded incidents of deliberate misuse/user human error, 79 near misses and 29 incidents of users not calling the signaller back when requested.

## Operational Issues of Level Crossings

## Level Crossing Managers, Inspections, and Risk Assessment Frequency

47. Details of the requirements for level crossing risk assessments are described in documents NR22 (Network Rail Operations Manual 5-16 Risk Assessing Level Crossings) and NR23 (Network Rail Level Crossing Guidance 01).
48. Management of level crossings imposes a significant staffing cost. Anglia route is divided into 14 Level Crossing Manager zones. Each Level Crossing Manager is based at the appropriate maintenance delivery unit and is responsible for the assessment, inspection, and basic maintenance of the level crossings in their zone. Their duties include maintaining a relationship with the authorised users of private crossings to ensure they understand safe operation. They also have a role in raising public awareness of level crossing risk. Each zone has just over 50 level crossings on average.
49. The frequency of inspection varies by the type of level crossing. Figure 6 (extracted from NR22) describes the maximum interval between inspections:

| Description | Maximum <br> Inspection Interval |
| :--- | :--- |
| Automatic Half Barrier Crossings | 7 weeks |
| Automatic Half Barrier Crossings Locally Monitored | 7 weeks |
| Automatic Full Barrier Crossings | 7 weeks |
| Automatic Open Crossings Locally Monitored | 7 weeks |
| Automatic Open Crossings Remotely Monitored | 7 weeks |
| Miniature Stop / Warning Lights | 7 weeks |
| Manually Controlled Barriers all types | 3 months |
| Traincrew Operated Crossings | 3 months |
| Manned Gated Level Crossings | 3 months |
| Station, Barrow or foot Crossings with White Lights | 3 months |
| Open Crossings | 6 months |
| User Worked Crossings | 6 months |
| Footpath and Bridleway Crossings | 6 months |
| Station, Barrow or Foot Crossings without White | 6 months |
| Lights | 6 Months |
| Sleeping Dog Crossing | In accord with |
| Crossings on Mothballed lines | specific crossing type |

FIGURE 6: MAXIMUM INSPECTION INTERVALS
50. The frequency of risk assessment at level crossings varies by the present risk score of the level crossing, and is specified in the ALCRM system for each
crossing. The minimum frequency for any crossing is once every 3.25 years (unless the crossing is out of use), although many crossings are assessed more frequently.
51. Additionally, level crossings receive 'unplanned' risk assessments following a trigger. The triggers are described in section 5.3 of document NR22.

## Closures and Mitigations

52. After each risk assessment, the Level Crossing Manager will complete optioneering, looking at ways of eliminating or reducing the risks that have been measured, to make the risk as low as reasonably practicable. Whilst outside the scope of this Order, Network Rail has a wider programme of gate-to-gate enhancements ${ }^{5}$ and installation of technology to reduce the risk at level crossings. The rolling programme of risk mitigation sometimes means that level crossings where closure is foreseeable may be fitted with technology until closure can be arranged; the risk is reduced until it can be removed altogether. ${ }^{6}$
53. Enhancement of level crossings usually entails works that Network Rail can deliver unilaterally, for which it already has powers. ${ }^{7}$ However, permanent closure of level crossings and hence elimination of risk on the network requires public and private rights of way to be changed, for which Network Rail must apply for powers.

## Temporarily Closed Level Crossings

54. There are a number of level crossings that Network Rail has temporarily closed due to the crossing having non-compliant sighting, or because the furniture at the level crossing does not allow safe ascent and descent of the embankment or cutting necessary to reach the crossing.
55. In such cases, Network Rail will usually apply to the relevant highway authority to arrange a Temporary Traffic Regulation Order, authorising temporary closure of the public right of way (or highway) across the level crossing. These Orders may last for up to 6 months at public right of way level crossings, but may be extended on application by the highway authority to the Secretary of State.
56. Network Rail will also apply for a Temporary Traffic Regulation Order when level crossings are being maintained, which precludes the level crossing being available for public use.

[^4]57. Fees are payable for each temporary closure to be advertised. These vary by highway authority.

## Temporary Speed Restrictions (TSRs)

58. If a level crossing has insufficient sighting, Network Rail may consider implementation of a TSR. These speed restrictions affect the efficient running of train services, delaying passengers and requiring compensation to be paid to operators.
59. TSRs may have further-reaching effects on the safety of users:
59.1. They may have an adverse effect on the operation of active level crossings, which are calibrated to be triggered when the train passes a certain point. This may increase the risk at these crossings.
59.2. Trains may become out of sequence, causing network congestion and increasing signaller workload, increasing the risk of mistakes being made.
59.3. TSRs are only effective if the driver observes the local instructions. The more TSRs on a route, the greater the chance of one being accidentally missed by a driver.
60. For these reasons, TSRs are only applied where absolutely necessary and where there will be negligible transference of risk.

## User Worked Public Level Crossings

61. Under British Rail, on lightly used railway lines and roads, necessary economies sometimes led to the demanning of public road level crossings to reduce staffing costs. In their place, a telephone connected to the controlling signalbox was provided, and the gates were altered to open away from the railway, rather than to fence it when the crossing was in use by road vehicles. This left the railway network with level crossings which all road users are entitled to use, but with a form of protection that would now only be deemed suitable for private users, where Network Rail can engage with specific individuals to ensure they understand how to use the crossing correctly.

## Sleeping Dogs

62. A number of level crossings on the network are not currently in use, the infrastructure having been removed, but rights of way technically remain. This may be because a way is obstructed or because it is simply no longer required and has fallen out of use. These are known as 'sleeping dog' level crossings and although no usage or risk currently exists, use of the right of way might be revived in the future, restoring risk to the network.

## Inclusive Design and Accessibility

63. Prima facie a level crossing may be viewed as the shortest and flattest possible route across the railway, and thus the most inclusive. However, this is not the case.
64. Many level crossings, and most of the crossings in this Order, require users to judge for themselves when it is safe to cross. Those with impaired vision may be unable to see approaching trains, leading to them making the wrong decision to cross, which could prove fatal.
65. The nature of the railway is such that trains take a substantial distance to stop, even at low speeds. By the time a train driver has seen a person on a level crossing and established that they have crossed in the path of an approaching train or are having difficulty moving, it will usually be too late to brake successfully. This is distinguishable from road vehicles in urban environments, where drivers are able to adapt their driving to accommodate vulnerable users, and to swerve and/or stop quickly if a pedestrian walks in front of their vehicle.
66. Some level crossings are located on or near curves in the railway, where approaching trains cannot be seen, and the warning of an approaching train is therefore sounded by the train's horn. There is a risk that a person with hearing loss could miss a train horn, and seek to cross in front of an approaching train. ${ }^{8}$ The nature of the warning of approaching trains is not advertised at each level crossing, so those with reduced hearing may not appreciate that the crossing is not safe to use unless one can hear sufficiently. ${ }^{9}$
67. Passive level crossings rely on a gate or stile in the boundary fence to alert users that they are entering the railway environment, and prevent animals straying onto the railway. Such features constitute a barrier to access for some users. Stiles can theoretically be replaced by wicket gates to improve accessibility. However, this may lead to a level crossing being used by slowermoving users, for whom there may be insufficient warning of an approaching train.
68. Where the railway is in a cutting or on an embankment, steps are provided to facilitate passage. Replacement of lineside steps with ramps is often not practical owing to constraints of space.
69. Active level crossings have visual and audible warnings, which tell users when they are able to cross the railway. These are therefore more suitable for use by those who are less able to detect the approach of a train audibly or

[^5]visually. Crossings with full barriers across the road provide a physical block to those who may not be able to detect warnings. However, there remain several factors that can cause accessibility problems at active level crossings:
69.1. It is not possible to have a kerb that segregates the footway from the carriageway. Only a white line is possible.
69.2. If the visual and audible warning starts, users may panic.
69.3. On curves, the outer rail is raised above the inner rail, to account for the differential between the rail wheels. This means that a level crossing cannot be flat if it is located on a significant curve, resulting in an unavoidable trip hazard.
69.4. Pedestrians may be struck by descending barriers, especially if they have not heard or seen the warning of their descent.
69.5. At half-barrier crossings, pedestrians might approach the railway on the right-hand side of the road, where there is no barrier. This means pedestrians have no physical barrier across their path, although they do still have the benefit of visible and audible warnings.
69.6. Some pedestrians move too slowly to reach the other side of the level crossing before the barrier has descended. If warning times at level crossings are extended to accommodate slower-moving users, misuse by other users may increase by reason of their impatience.
69.7. It is not generally possible to grit level crossings or their approaches to combat snow or ice, even if the surrounding highway network is gritted. This is because of the likelihood of track circuits failing, ${ }^{10}$ and the corrosion that can result to rails. ${ }^{11}$
70. In assessing the compliance of a level crossing for pedestrians, Network Rail assumes a walking speed of $1.2 \mathrm{~m} / \mathrm{s}$. The distance across the level crossing is measured from the 'decision point', to a point 2 m clear of the furthest running rail. The decision point is 2 m from the nearest running rail for footpaths, and 3 m for bridleways. Where vulnerable users are identified, the speed of traversing the crossing is reduced. This can mean that level crossings which are compliant for users moving at $1.2 \mathrm{~m} / \mathrm{s}$ are non-compliant for those who move more slowly.
71. Level crossings can cause difficulties for people who move slowly, and are not suitable for users who are unable to see or hear approaching trains or warning devices, as necessary at each crossing. This may mean that some

[^6]users with a disability avoid routes with level crossings, or use them at increased risk over those without such disabilities. Those with mental impairments or young children may also not understand the importance of the decision they are being required to make when crossing the railway.
72. In this Order, we have sought to improve accessibility on our diversionary routes where feasible, and have proposed routes which are free of steps and stiles in the majority of cases. We have discharged our public sector duty at all levels of decision making, and have undertaken a Diversity Impact Assessment Scoping Report for all level crossings in the Order as well as preparing several site specific Diversity Impact Assessments where possible issues have been identified.

## Responding to Incidents: Reliability

73. In the event that an asset inspection results in a defect or non-compliance issue arising at a level crossing, there is an additional workload on Section Managers, Section Planners, the Infrastructure Maintenance Engineer and those staff that then carry out any repair works required to bring the level crossing back up to a safe standard.
74. In the event of reported incidents, e.g. a gate left open, it will be for a Mobile Operations Manager to attend a level crossing in the first instance. Attendance times vary based on staff locations and workload. If a crossing user fails to follow the signaller's instructions to call back and declare the line clear after crossing, or if the signaller becomes aware of an incident, trains will be stopped or cautioned ${ }^{12}$ until the incident is resolved. In some instances, a train driver will be instructed to shut the gate at a level crossing when he reaches it. The cautioning or stopping of trains impacts on performance and reliability.
75. Figure 7 shows the delay minutes have been attributed to level crossing failures on Anglia route:
[^7]| Delay code and reason | $\begin{aligned} & \text { O- } \\ & \text { Nे } \\ & \text { N } \\ & \text { O} \end{aligned}$ |  | $\begin{aligned} & \text { N} \\ & \text { N} \\ & \text { N } \\ & \text { Ni } \end{aligned}$ | M N N N N- | $\begin{aligned} & \text { - } \\ & \stackrel{N}{N} \\ & \underset{N}{-} \\ & \text { N} \end{aligned}$ | $n$ N N - - N | $\begin{aligned} & 0 \\ & \text { - } \\ & \text { N } \\ & \stackrel{1}{7} \\ & \text { N} \end{aligned}$ | $\begin{aligned} & \text { N } \\ & \stackrel{N}{N} \\ & \stackrel{0}{6} \\ & \underset{N}{N} \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XD (Level Crossing Incidents) | 11,812 | 13,921 | 15,897 | 7,964 | 12,891 | 8,532 | 8,178 | 14,521 | 2,769 |
| ID (Level crossing failure) | 18,503 | 14,963 | 15,687 | 16,938 | 16,659 | 11,781 | 16,903 | 13,042 | 3,240 |
| Total | 30,315 | 28,884 | 31,584 | 24,902 | 29,550 | 20,313 | 25,081 | 27,563 | 6,009 |

FIGURE 7: DELAY MINUTES ATTRIBUTABLE TO LEVEL CROSSINGS

## Track Maintenance

76. When certain track maintenance operations are performed, it is necessary to remove level crossing decks, and arrange a temporary closure of the level crossing while this is done. Each closure of a public crossing requires an application to the highway authority for a temporary closure and payment of its fee for processing and advertising the order (often $£ 1000$ per crossing). It also requires gangs to attend to remove the deck, then to reinstate it after works are completed. This means that railway maintenance interrupts rights of way, impacting local communities. Diversion to grade-separated routes eliminates many of the occasions when temporary closure is required. Whilst bridges still need to be closed occasionally for maintenance or renewal, maintenance of the permanent way does not usually necessitate any interference with grade-separated crossings of the railway.
77. Avoidance of the need to close rights of way and lift crossing decks can lead to the track not being tamped across level crossings. This can impact adversely on ride quality and require speed restrictions. An untamped section of railway may cause a bounce which will create a decreasing ripple effect of wear away from the level crossing due to the train weight not being evenly loaded on the track.
78. Some areas of Anglia route require tamping several times a year, owing to ground conditions.

## Installation and Renewal Costs of Assets

79. The table presented in Appendix D illustrates the renewal cost of different types of level crossings. It also shows the costs of installing additional warning devices. These are the cost estimates on which Network Rail is basing its CP6 funding application.
80. Appendix E quotes real world costs of some common level crossing maintenance items. As each level crossing can be in a different setting and
have different requirements, there is scope for costs to vary considerably. Similarly, the lifetime of the components of a level crossing will vary depending on usage and environmental factors.
81. Where the railway is built at a higher level than the surrounding land, the raised approaches to a vehicular level crossing must be assessed and maintained so that vehicles do not become grounded on the level crossing. As many of these earthworks date from the Victorian era, before the modern understanding of geotechnics was developed, and weather is becoming more extreme, this has the potential to be a worsening problem. An estimate of £10-20k per crossing is not unrealistic where significant earthworks are required.
82. Where the railway is not level with the surrounding land, it is necessary to maintain steps (and sometimes handrails) to allow pedestrians to negotiate embankment or cutting slopes. This furniture is often built of wood and requires regular renewal. A typical crossing with steps can cost almost $£ 20 \mathrm{k}$ for renewal ${ }^{13}$ (based on Higham level crossing), in addition to all other maintenance costs
83. The future strategy for level crossings, and the desire to reduce risks that cannot be eliminated, will lead to more technology being installed at passive level crossings. This is described in Transforming Level Crossings 2015-2040 (NR17). However, an increased level of warning equipment at level crossings leads to a railway which is more complex-and hence more expensive-to operate and maintain. There will be more signalling equipment to inspect, maintain and renew, and more failure points to investigate and rectify. As level crossings may share some technology, say for train detection, failures may impact on several level crossings simultaneously. Elimination rather than mitigation of the risk remains a preferred solution, in line with the ORR approach set out in NR14.

## Cost of Incidents at Level Crossings

84. When incidents at level crossings happen, the result can be a fatality, a lifechanging injury or trauma. The effect may be limited to road and rail vehicle damage and delayed services.
85. Figure 8 gives some examples of the compensation paid to train operators for delays following incidents that occurred at level crossings.
[^8]| Crossing | Date | Incident | Cost |
| :--- | :--- | :--- | ---: |
| Nairns | $12 / 08 / 2016$ | Collision with Land Rover | $£ 202,743.17$ |
| Hockham Road | $10 / 04 / 2016$ | Collision with tractor | $£ 17,503.94$ |
| Maltings (St <br> Margaret's) | $24 / 11 / 2016$ | No call back following vehicle <br> usage: trains cautioned | $£ 1,437.96$ |
| Grimston Lane | $10 / 09 / 2016$ | Pedestrian fatality | $£ 3,523.47$ |
| Cattishall | $24 / 03 / 2014$ | Pedestrian fatality | $£ 30,750.04$ |
| Weatherby | $06 / 08 / 2015$ | Suicide | $£ 5,172.16$ |

FIGURE 8: COMPENSATION FOR DELAYS PAID FOLLOWING LEVEL CROSSING INCIDENTS
83. The costs above do not include compensation paid to train operators in respect of damage to their rolling stock and other costs incurred. Some examples of such costs are shown in Figure 9. Note that, if the user of a level crossing is found to be at fault, it may be possible for the compensation to be recovered from the user's insurers.

| Crossing | Date | Incident | Compensation <br> claimed from <br> Network Rail |
| :--- | :--- | :--- | :--- |
| Hatson | September 2011 | Collision with farm <br> vehicle | $£ 950,653$ |
| Oakwood [not <br> Anglia route] | May 2015 | Collision with <br> tractor | $£ 118,000$ |
| Hockham Road | $10 / 04 / 2016$ | Collision with <br> tractor | $£ 1,595,913$ |

FIGURE 9: COMPENSATION FOR DAMAGE SUSTAINED IN LEVEL CROSSING COLLISIONS

## Capacity and Network Development

84. Developing the capacity of the railway requires, as a minimum, a suitable and sufficient risk assessment of every level crossing on the affected route under the proposed new conditions. The general effects of increasing the speed and/or frequency of trains are:
84.1. Increased risk of a collision at level crossings;
84.2. Worse consequences in the event of a collision at a level crossing, owing to higher velocity of impact and/or a greater chance of a second train coming;
84.3. Reduction of sighting of approaching trains, reducing the available time to cross;
84.4. A requirement to move existing whistle boards further away, such that they may no longer be effective;
84.5. Longer closure time of crossings to vehicles (public and private) and pedestrians.
84.6. Movement of strike-in points for active level crossings.
85. Mitigation of the additional risks may require upgrades to level crossings. For example, automatic half barrier crossings may be replaced by full barrier crossings with object detection technology. These are a much safer type of crossing as they must be proved clear before a train can proceed across them, but there is a pronounced increase in road closure time, and also operational expense. For example, a typical automatic half barrier (AHB) level crossing may be closed for less than a minute per train, whereas the minimum closure for an object detection level crossing is 3 minutes.
86. Fewer level crossings on a stretch of line means fewer sites requiring risk assessments, and fewer crossings requiring potential upgrades or closures to accommodate enhancements.
87. Document NR24 is the Anglia Route Study. This is part of the Long Term Planning Process and considers the potential outputs required by the railway network within the Anglia Route, both in CP6, and ahead to 2043.
88. Details on the relevant enhancement schemes that fall within the Cambridgeshire TWAO area are outlined below.

## Ely Area Capacity Enhancement

89. In March 2017, £8.8m of funding was secured from the Local Enterprise Partnership (LEP) and Strategic Freight fund to allow the first stages of development works to be undertaken. Funding covers GRIP ${ }^{14} 1-3 a$ only.
90. The project will be considering improvements to freight headways, Ely station layout, upgrades/closure of level crossings and amendments to existing bridges over the railway.

## Cambridgeshire Area Signalling Transfer

91. This is a project to transfer signalling from Cambridge power signalbox and local signalboxes to the Romford Route Operations Centre and due for completion in CP5.
92. Level crossings that are closed may be removed from the scope of the signalling data transfer.

14 See infra

## Ely to Soham Doubling

93. A single option design for the doubling of tracks from Ely to Soham was completed in CP5. Further funding will be sought in CP6 to continue the project.
94. The objective of the scheme is to provide the capacity to run 48 freight train paths per day.
95. The doubling of the tracks would necessitate the closure of level crossings on this route due to the increased number of trains.

## East West Rail (Central Section)

96. This is a project to establish a railway connecting East Anglia with Central, Southern and Western England to improve journey times and increase capacity for passenger and freight services.
97. The Central Section requires further assessment works for the business case to be developed by Network Rail.

## King's Lynn 8 Car

98. To meet existing demand on this line, and to accommodate the new Class 700 8-car Thameslink trains, platforms on this route are being extended. Funding is in place to enable delivery in CP5.

## Conclusion

99. This section has demonstrated the benefits of and need for the Order. The proposed scheme can deliver real safety benefits to users, reduce Network Rail's maintenance burden, improve reliability and facilitate future railway enhancement schemes.
100. A successful Order would lead to a rationalisation of the level crossings across the network and allow Network Rail to focus resources on the remaining level crossings. At a time when funding is becoming increasingly difficult to secure, this project can help reduce funding demands to deal with level crossings.

## Project Context

101. This section will describe previous initiatives to remove level crossings from the network, and current initiatives to reduce level crossing risk.
102. In Control Period 4 (CP4) ${ }^{15}$ from April 2009 to March 2014, Network Rail invested funding and commenced projects that would improve safety at level crossings. This included a focus on closing level crossings as well as asset enhancement schemes, installing technology to assist users in the safe use of level crossings.
103. Closures in CP4 were focused on closing some of the highest risk public right of way crossings through the construction of significant infrastructure, such as bridges and subways. In the case of private level crossings, the release of rights of way across the railway was agreed by negotiation where landowners were willing to agree terms.
104. Network Rail's long term strategy to improve safety at level crossings is outlined in Transforming Level Crossings 2015-2040 (NR17). This strategy has a vision for no accidents at level crossings and emphasises the continuing priority to close level crossings as the most robust form of risk reduction.
105. At the start of CP4, the rail network had around 7500 level crossings. Funding was made available from the ORR to pursue level crossing closures nationally. This project was more successful than initially anticipated, delivering 1070 closures and downgrades within CP4. Nationally, level crossing risk was reduced by 31\%, measured by the reduction in FWI (NR17).
106. Figure 10 shows the number of level crossings on Anglia route closed or downgraded by year of legal completion, back to the year ending 31 March 1970. As a result of the CP4 funding, it can be seen that the number of closures and downgrades achieved in y/e 2010 and 2011 is much higher than at any time since y/e $1992 .{ }^{16}$

[^9]

FIGURE 10: LEVEL CROSSINGS CLOSURESIDOWNGRADES ON ANGLIA ROUTE BY YEAR
107. By the beginning of $\mathrm{CP} 5{ }^{17}$ the rail network in Great Britain had 6291 level crossings with a collective FWI of approx. 13 as calculated by the All Level Crossing Risk Model (ALCRM) (NR17). Over a third of this level crossing risk sat with Anglia route.
108. At the time of writing, ${ }^{18}$ the total level crossing FWI on the network is 11.79, and Anglia route has $25 \%$ of this, with FWI of 2.95, despite having just $13 \%$ of the crossings.
109. The CP5 strategy on Anglia route for reducing level crossing risk is:
109.1. Close level crossings where reasonably practicable
109.2. Install new equipment at level crossings to reduce risk where closure cannot be achieved
109.3. Proceed with construction of bridges or alternative access routes at identified high risk sites to secure closure and removal of a level crossing.
110. Historically those public level crossings with the highest risk ratings and FWI were selected for closure. This would typically involve construction of bridges and/or significant levels of compensation to third parties.

[^10]111. On the commencement of CP5 and with a renewed focus on trying to achieve further level crossing closures, Anglia Route considered a new approach to closing level crossings.
112. All level crossings across Anglia Route were assessed using in-house knowledge and put into 5 phases:
112.1. Phase 1 - mainline level crossings that could be diverted and removed through the utilisation of existing nearby infrastructure and those that could be closed or downgraded due to extremely low usage;
112.2. Phase 2 - branch line level crossings that could be diverted and removed through the utilisation of existing nearby infrastructure and those that could be closed or downgraded due to extremely low usage
112.3. Phase 3 - non-vehicular level crossings closure of which requires new infrastructure for an alternative means of crossing the railway;
112.4. Phase 4 - vehicular level crossings requiring diversionary roads to existing infrastructure;
112.5. Phase 5 - vehicular level crossings requiring the construction of a vehicular bridge.
113. This Order progresses level crossings that fall within phases 1,2 and 4. These phases are being progressed first due to the minimal infrastructure investment required.
114. This phased strategy is further outlined within the Client Requirements Document (NR18). This document sets out a high-level strategy for systematically closing level crossings on Anglia route, including initial proposals for each crossing. The strategy was planned to be applied in phases. It also outlines a switch away from utilising the Highways Act to gain the consents needed to close level crossings and instead proposes the use of the Transport and Works Act.

## Use of Transport and Works Act Order

115. This section sets out the justification for using Transport and Works Act Orders for level crossing closures.
116. The level crossings closures and downgrades completed in CP4 and CP5 to date have primarily been delivered through negotiation, in respect of private rights, and through Rail Crossing Diversion or Extinguishment Orders under the Highways Act 1980 in respect of public rights. The success of the closure programmes delivered in CP4 and early CP5 has depleted the opportunities for proceeding by negotiation.
117. Network Rail has chosen to apply for a Transport and Works Act Order for the level crossings within this scheme for a number of reasons.
118. In the case of level crossing closures, the Highways Act 1980 includes arrangements under sections 118A and 119A for the stopping up and/or diversion of footpaths and bridleways crossing railways. However these apply only where it appears to the relevant council to be expedient in the interests of the safety of members of the public using or likely to use such crossings, and not for wider railway purposes. In the case of the crossings with which this Order is concerned, the justifications for closure relate not only to the safety test as set out in those sections of the Highways Act, but more widely to enable improved efficiency, network reliability, and the potential for capacity or linespeed enhancements.
119. The principle of closing or amending the status of level crossings by means of Transport and Works Act Orders is not new. See for example the Railtrack (Swinedyke Level Crossing) Order 1995 (SI1995/3188), the Network Rail (Seaham Level Crossing) Order 2013 (SI 2013/533), and the Network Rail (Northumberland Park and Coppermill Lane Level Crossing Closure) Order 2017 (SI 2017/257).
120. An Order under the Transport and Works Act provides the means for Network Rail to address comprehensively and holistically the purposes and effects of its national and regional level crossing strategies where multiple closures are proposed and which cannot be achieved through the relevant procedures within the Highways Act. The Highways Act 1980 does not contain any provision for multiple applications for level crossing closures and it is likely that even if the closures and changes to status of crossings could be effected by multiple individual applications under sections 118A and 119A of that Act this would completely overburden a local highway authority and take a considerable time to determine.
121. The Order includes a number of matters (which fall firmly within the ambit of Schedule 1 to the Transport and Works Act) such as, the carrying out of certain Scheduled works, such as bridges over watercourses; the carrying out of surveys and the payment of compensation. A Transport and Works Act Order will grant Network Rail powers to create diversionary rights of way, public or private, on private land, or compulsorily acquire private land to enable closure of private level crossings. ${ }^{19}$ It will also allow Network Rail to make alterations to highways on diversionary routes, such as the installation of traffic calming measures or segregated footways.
122. There is also no restriction on the status of level crossing which may be altered. Rail Crossing Diversion and Extinguishment Orders cannot be used

[^11]on cycle tracks, byways open to all traffic or public carriageways. Private level crossings may also be closed.
123. A Transport and Works Act Order also permits the downgrade or upgrade of the status of certain highways and authorises certain public and or private rights over a crossing to be extinguished, where appropriate, in place of outright closure. The Order contains provisions to allow Network Rail to temporarily stop up the highway and for traffic regulation associated with the proposed works and diversionary routes. Furthermore, the repeal of former railway legislation relating to level crossings and the modification of existing statutory regimes and provisions for the protection of statutory undertakers in relation to the works proposed can only be achieved through a Transport and Works Act Order. ${ }^{20}$

## Funding

124. The Funding Statement submitted with the application for the Order sets out Network Rail's proposals for funding the cost of implementation (NR06). The project has secured funding in CP5 from the Level Crossing Risk Reduction Fund (LCRRF), which was established by the ORR and is overseen by the Safety, Technical and Engineering (STE) directorate in Network Rail, to enable Network Rail to maximise level crossing risk reduction in CP5. The guidelines for the funding outlined that it could be used for crossings that had a high certainty of closure within CP5 and that had an opportunity for closure (NR19).
125. The ORR Final Determination for CP5 (NR15) specifies that the required output of the LCRRF is (1) to maximise the reduction in the risk of accidents at level crossings, and (2) to enable the closure of level crossings. Network Rail has set a target of a $25 \%$ reduction in level crossing FWI against the LCRRF to demonstrate compliance.
126. Further funding in CP5 has been provided by Anglia Route from its signalling budget, which is utilised for asset management purposes, to enable a greater number of level crossing closures and downgrades to be completed in CP5.
127. As part of its application to the ORR for the CP6 funding settlement in December 2017, Anglia route will be seeking funding to implement level crossing closure works for which consent has been obtained in CP5.
128. It is also part of the wider Anglia Level Crossing Reduction Strategy that has seen the deposition of similar Orders for Suffolk, and Essex and Others. The Funding Statement in the Order states that the Cambridgeshire Level Crossing Reduction project has an anticipated final cost of $£ 3.931$ (NR06).

[^12]129. The authorised funds in CP5 and the funds applied for in CP6 will meet the capital cost of implementing the Network Rail (Cambridgeshire Level Crossing Reduction) Order inclusive of compensation.

## The Draft Network Rail (Cambridgeshire Level Crossing Reduction) Order

130. This section will provide an overview of the Order being applied for.
131. The level crossings in this Order are located throughout the county. Figure 11 shows the location of each of the level crossings with a black triangle (the black lines are railway lines).


FIGURE 11: CAMBRIDGESHIRE LEVEL CROSSING LOCATION MAP
132. As described in Schedule 1 of the draft Order (NR02), the proposed Order will allow Network Rail to close 23 level crossings, to redesignate the status of 5 level crossings, and to provide new access to a railway station platform. In connection with these powers, the Order includes powers to Network Rail to undertake the following works:
132.1. Creation of Public Rights of Way (PRoW) as diversionary routes;
132.2. Improvement of existing PRoWs to provide safe and accessible routes;
132.3. Provision of 8 footbridges and 1 bridleway bridge to carry PRoWs over watercourses;
132.4. Removal of level crossing assets and installation of boundary fencing;
132.5. Provision of steps, mounting blocks, signage and other highway infrastructure.
132.6. Construction of one culvert;
132.7. Construction of new PRoWs on Network Rail and outside party land;
132.8. Construction of turning heads at three level crossings to enable vehicles to turn around in the highway;
132.9. Construction of steps to carry pedestrians at three level crossings;
132.10. Construction of gates, signage and fencing as appropriate;
132.11. The compulsory acquisition of rights over third party land for the proposed works and ancillary purposes, including worksites; provisions for the temporary use of land in connection with the authorised project; and the extinction and creation of private rights; and
132.12. The operation and use of the railway; temporary and permanent stopping up of highways; provisions relating to streets.
133. Crossing C18 (Munceys) has been withdrawn from the Order.

## Development of the Scheme

134. This section describes the evolution of the scheme from conception, through consultation and design, to final proposals. More details on other alternatives considered may be found in the Statement of Consultation (NR05).
135. Governance for Railway Investment Projects (GRIP) is Network Rail's project management and control process for delivering projects on the operational railway. It is mandatory for all projects. The approach is based on industrywide best practice. The GRIP stages are:

- GRIP 1: Output definition
- GRIP 2: Pre-feasibility
- GRIP 3: Option selection
- GRIP 4: Single option development
- GRIP 5: Detailed design
- GRIP 6: Construction test \& commission
- GRIP 7: Scheme hand back
- GRIP 8: Project close out

136. The sections below outline the development of the project and the output from each GRIP stage.

## GRIP 1

137. At GRIP stage 1 in 2015, Network Rail, with the support of design consultants Mott MacDonald, assessed the suitability of each of the level crossings that were initially placed in phases 1,2 and 4 of the strategy.
138. There were 221 level crossings across multiple counties.
139. As well as providing detailed feasibility reports for each county and all relevant level crossings within it, the following outputs were delivered:
139.1. Site visits undertaken where physically possible;
139.2. General Arrangement plans for each level crossing proposal;
139.3. Initial batch of Stage 1 Road Safety Audits (NR16);
139.4. A Diversity Impact Assessment Scoping Report covering all level crossings;
139.5. Anticipated Final Cost estimates for LA, broken down to a cost per level crossing;
139.6. Consultation with strategic stakeholders with a series of workshops across the counties with representation from relevant offices from each County Council;
139.7. Initial series of meetings with wider statutory bodies to outline the scheme and selected level crossings;
139.8. Limited number of landowners consulted;
139.9. Access and User Groups contacted with a questionnaire to gain feedback in regards to the strategy approach;
139.10. Desktop study into bridge structure examination reports held by Network Rail, environmental constraints, OS and Land Registry data.
140. Following the completion of GRIP 1, the County of Norfolk and the branch lines (phase 2) in Suffolk were de-scoped from the project due to the overall estimated cost exceeding available funding. The GRIP 1 estimates were used and those parts of the project that delivered the lowest potential FWI reduction per pound were removed. ${ }^{21}$ This resulted in 133 level crossings being progressed into the next GRIP stage, with 33 of those being within the Cambridgeshire Order.

## GRIP 2

141. In April 2016 Network Rail and our selected design consultants continued the development of the level crossing proposals.
142. In preparation for the informal rounds of public consultation, the following activities were carried out:
142.1. Usage data were collected for each crossing;
142.2. Consultation with County Councils continued and comments were considered in the plans for each level crossing;
142.3. Environmental surveys/appraisals were undertaken on the multiple diversion routes and work areas;
142.4. A further round of Stage 1 Road Safety Audits was carried out (NR16);
142.5. Road traffic counts and surveys on any diversion routes next to roads;

[^13]142.6. Drafting of Diversity Impact Assessment reports for those crossings identified as having a potential significant impact on users with protected characteristics;
142.7. Consultation with all landowners that have land directly affected by diverted rights of way or that have rights affected at private level crossings.

## GRIP 3

143. Information obtained through GRIP 1 and 2 was used to prepare for the first round of public consultations in June 2016. A total of 12 exhibition venues were chosen ${ }^{22}$ with representation from Network Rail, its key contractors and technical leads. The venues chosen were accessible and generally located a maximum of 10 miles from any of the level crossings being consulted upon.
144. The relevant consultation event was advertised at every level crossing, together with a link to the project website.
145. Each exhibition event provided summary boards and route maps, as well as detailed site plans displaying the various diversion routes for each site. Where multiple diversion routes were available for a particular level crossing, colour coding was used to show the options.
146. County, District, and Parish/Town Councils were invited to attend the events an hour before they opened to the public. The plans for each event went live on the website on the morning of each consultation event.
147. Questionnaire responses were invited from those that attended the events. The details on display at the event were also made available online, and questionnaires could be electronically submitted regardless of whether one attended an event.
148. 284 questionnaire responses were received. These, along with other letters, email sand telephone calls, were used in refining the options.
149. Follow up workshops were subsequently held with the County and District Councils to review the responses received.
150. Along with the considered consultation responses other factors including engineering constraints, costs, environmental impact, user safety, landowner impacts and constructability were all considered in an internal workshop. The information was summarised on Assessment Summary Tables (ASTs) and in the majority of cases a single preferred option was selected.

[^14]151. The second round of public consultation commenced in September 2016 and included the previous 12 venues ${ }^{23}$ with one extra venue in Thurrock to improve the distance and spread of level crossings from their respective venue. ${ }^{24}$
152. A further 254 questionnaire responses were received, which again were reviewed with the County and District Councils.
153. A second round of internal workshops was held and a preferred option was selected for each level crossing.
154. A third round of information was released to the public on those crossings that had seen significant changes from what had been presented at the round 2 consultation events.
155. Consultation with private landowners affected directly or indirectly by the plans continued through to deposition.
156. Four crossings were de-scoped from the project prior to deposition of the Cambridgeshire Level Crossing Reduction Order due to consultation feedback or the cost associated with the individual closures.
157. The Order was deposited on 14 March 2017 requesting powers to implement changes at 29 crossings. The consultation described above, and as required by the 2006 Rules is further described in the Statement of Consultation (NR05) submitted as part of the application for the Order.

## Environmental Statement

158. No Environmental Statement was required, following a decision from the Secretary of State (NR11).

## Planning Permission

159. A request to the Secretary of State for deemed planning permission for the Scheduled works accompanied the application for this Order, including details for the bridges to be constructed over watercourses. Initial high level conversations have been held with the highway authority regarding the typical design for bridges.
160. Prior to the public inquiry Network Rail will discuss with the local planning authorities and seek to agree the form of the draft planning conditions submitted with the request for deemed planning permission.
[^15]
## Land and Property

161. Land and property will be used in the following ways:
161.1. temporary access over land;
161.2. temporary occupation of land and property;
161.3. permanent acquisition of land;
161.4. permanent acquisition of rights over land.
162. All of the areas of land and property rights sought in the draft Order are necessary to implement the Order scheme and/or to maintain access to the operational railway when the right of way to it is extinguished. No rights will be acquired either permanently or temporarily unless required for these purposes.
163. Network Rail is seeking to acquire the necessary rights by negotiation. All references to Plots are to be read in conjunction with the Order Plans that accompanied the draft Order (NR08).

## Temporary Access

164. Powers of temporary access or occupation are required in relation to land which is needed for construction and access purposes, but which is not required for the future operation or maintenance of the scheme.

## Existing Compensation Code

165. Those who have land or an interest in land acquired from them temporarily will be entitled to compensation and landowners whose property is affected by the works may be entitled to compensation in certain circumstances.
166. The Order applies Part 1 of the Compulsory Purchase Act 1965 which, through its application, has the effect of requiring Network Rail to pay compensation to qualifying parties under what is known as the Statutory Compensation Code (the Code).
167. The Code as it now stands is an amalgamation of numerous Acts of Parliament and legal precedents that have evolved over 150 years.
168. Landowners whose land will become subject to new public rights of way will be entitled to compensation in line with that payable under s. 28 Highways Act 1980.

## Objections and Representations

## Objection Period

169. After the Order application was submitted, the Department for Transport invited objections and representations. The period for this was 42 days from the application date.
170. During that objection period, 51 objections, 3 representations and 4 letters of support were received.

## In Principle Objections to the Order

171. Several objections have queried the use of a Transport and Works Act Order to achieve the outcomes Network Rail is seeking, rather than by application to the local highway authority under sections 118A or 119A of the Highways Act 1980 (the 1980 Act). To the extent that these are not addressed above, Network Rail is entirely confident that it is appropriate to address these level crossing closures under the regime established by the Transport and Works Act 1992. Rail Crossing Diversion or Extinguishment Orders under the 1980 Act may only be used in the interests of public safety and have a limited remit. By way of contrast an Order under the Transport and Works regime can take into account not only safety but the wider context in which the railway is managed and operated. It can authorise ancillary works (such as footbridges and bridleway bridges to carry new public rights of way over drains or watercourses) as well as the removal of crossings, the diversion or redesignation of the status of certain public highways and the creation of new rights of way in substitution. Importantly, it allows multiple level crossings to be considered in a holistic way and in a single application (which the procedure under the 1980 Act is not equipped to do) and may confer the powers over land that are necessary to implement the requisite works, and for such works to be left in situ on land used only temporarily (which is outside the scope of the 1980 Act). This process also allows Network Rail to repeal local legislation relating to the level crossings, for example, at Littleport Station.
172. Concerns have been expressed about specific diversionary routes proposed by Network Rail, and these are considered below. More general concerns have also been expressed about disruption to the network of public paths and diversions that involving walking alongside the road. These include issues of safety, standards and maintenance of new public rights of way, and related matters. Network Rail is confident that diversionary routes have been provided wherever required and that the routes it has proposed are convenient and suitable replacements for existing users. Road Safety Audits have been undertaken (NR16) and, where appropriate, Network Rail is seeking powers to alter the layout of the roads concerned, carry out other street works and/or to regulate traffic. The Order specifically provides for any
new public rights of way to be constructed and completed to the reasonable satisfaction of the local highway authority before the existing route can be extinguished.
173. The Environment Agency (OBJ/31) had some concerns about specific crossings which are considered below. However, it was also concerned about the content and scope of the protective provisions in the draft Order for the protection of drainage authorities and the Environment Agency. Network Rail will consult the Environment Agency to better understand its concerns about the proposed protective provisions, noting that the form in which they are expressed in the draft order has recent precedent in other legislation.
174. The NFU (OBJ/43) has objected generally to the proposals on grounds of potential impacts on access to land and implications for farming businesses. It has also objected on a site specific basis, as described below.

## Support for the Order

175. The application for the Order has also attracted letters of support on grounds of safety.

## Level Crossings Affected by the Order

176. Descriptions of the existing crossings and the public rights of way and private rights associated with them together with the changes proposed by Network Rail were described in the Design Guide submitted alongside the application documents (NR12). Plans showing the existing routes and proposed changes were included at Part 4 of Volume 2 to the Design Guide, the relevant extract of which is included at Appendix F to this Statement of Case.
177. Summaries of the censuses of usage undertaken are presented in document NR25.

## C01 Chittering

## Location

This footpath crossing is located in the parish of Waterbeach and has the postcode CB25 9PW. It is on the Liverpool Street to Ely railway line (BGK), 64 miles 23 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheets 28 and 29 .

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land, parcels $02,03,04,05$, $06,07,09,10,11,12,13,14,15,16,17,21,23,25,26,27$ and 28 ;
in respect of powers limited to rights, parcels 01, 08, 20, 22 and 24;
in respect of powers limited to extinguishment of rights, parcels 18 and 19;
all in the Parish of Waterbeach.

## Nature of level crossing

This is a passive footpath level crossing with stiles in the railway boundary fence (FPS). Users are instructed to stop, look and listen, to beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, and has a line speed of up to 75 mph (up) and 90 mph (down). The ALCRM score for this crossing is C10.

## Rights affected

There are no private rights of way at the level crossing.
The level crossing is currently traversed by public footpath 18 (FP18 Waterbeach). This is an unsurfaced path passing north east through flat agricultural fields to the crossing. On the eastern side of the railway, the unsurfaced path passes north along the field boundary adjacent to the railway to join footpath 16 (FP16).

A 9 day camera census undertaken between 18 and 26 June 2016 with survey hours of 00:00 to 24:00 recorded no usage of this crossing.

## Order proposals

The Order would confer powers to close the level crossing to all users and extinguish existing public rights of way over the crossing. Users would be diverted to cross the railway at Jack O'Tell crossing to the north. (This has an ALCRM score of A2 and is also included in the reduction scheme in respect of vehicles - see C22 below).

The proposed diversion comprises a new 2 m wide unsurfaced footpath, approximately 250 m in length, on the western side of the railway running north in the field boundary to tie into the existing FP16. Provision is made for two footbridges (each approximately 10 m long) to be constructed over existing drainage ditches. On the eastern side of the railway, approximately 300 m of FP18 heading north from the level crossing to a junction with FP16 will be extinguished (it would otherwise form a cul-de-sac).

The distance for users coming from the west of the railway wishing to head east along FP16 is increased by approximately 425m.

## Land permanently affected by the proposals

The parcels of land affected by the proposed diversion and associated works are parcels 2, 4, 9, 11 and 16.

## Relevant objections

There have been 11 objections to the proposed closure of this level crossing, 7 of which relate to the impact of the proposals on one farming business:

OBJ/05 (Jill Tuffnell), OBJ/26 (The Ramblers), OBJ/29 (Ely Group of Internal Drainage Boards), OBJ/33 (Simon Clewlow on behalf of others including RLW Estates Limited), OBJ/38 (Lucy Fraser QC MP on behalf of FC Palmer \& Sons), OBJ/39 (Ian Palmer), OBJ/40 (David Palmer), OBJ/41 (Adam Palmer), OBJ/42 (Kier Petherick on behalf of F C Palmer and Sons), OBJ/51 (Luke Palmer) and OBJ/52 (Cambridgeshire Local Access Forum).

## Nature of the objections

OBJ/26 - The Ramblers expressed concern that two footpaths are to be closed and that the alternative routes are unacceptably long and that users are still required to cross the railway at a footpath level crossing. It expects usage of local footpaths to increase as a result of local residential development. Network Rail can confirm that only footpath 18 is subject to extinguishment between the points referred to in Part 1 of Schedule 2 to the draft Order, as shown on the plans. The circular walk will remain available. An aspect of Network Rail managing the risk associated with the potential increase in users of the footpath network is to direct users to a single crossing point over the railway.

OBJ/05 and OBJ/52 - Jill Tuffnell and the Cambridgeshire Local Access Forum are also concerned that the level crossing is a vital link in a circular route from Waterbeach and also that the diversionary route proposed by Network Rail is unacceptably long and involves an uninspiring walk along the railway line and a diversion to another at-grade level crossing. This objector would favour technology improvements to the level crossing over closure. Network Rail can confirm that the alternative route is not significantly longer and runs along the railway as does the current route. As explained above, the circular walk will remain available. An aspect of Network Rail managing the risk associated with the potential increase in users of the footpath network is to direct users to a single crossing point over the railway. Network Rail is satisfied that its proposed diversionary route is a convenient and suitable replacement for existing users.

OBJ/29 - Ely Drainage Boards objects to the closure as the existing arrangement provides it with access to the main drain network at this location for maintenance. Network Rail will continue to engage with the drainage board in relation to this, and other, crossings.

OBJ/33 - Simon Clewlow has no in-principle objection to the Order. He supports the general aims of the proposals and recognises the benefits. In this case, the specific closure of this crossing is objected to on the basis that the alternative access routes could prejudice agricultural security. Network Rail is seeking to understand the particular concerns with a view to addressing them where reasonably practicable.

OBJS/27, 38, 38, 40, 41, 42 and 51 are all concerned with the impact of the proposals on the farming partnership of F.C. Palmer and Sons. Network Rail will continue to engage with the relevant stakeholders to see how the issues they raise may be addressed.

## CO2 Nairns No 117

## Location

This private vehicular crossing is located in Stretham Parish and has the postcode CB6 3LG. It is on the Liverpool Street to Ely railway line (BGK), 65 miles 46 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheets 26 and 27 .

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to rights: $02,03,04,07$ and 08 ;
in respect of powers limited to extinguishment of rights: 06;
all in the Parish of Stretham.

## Nature of level crossing

This is a user worked vehicular crossing with telephone (UWCT).
The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, and has a line speed of up to 75 mph (up) and 90 mph (down). The crossing has an ALCRM score of B2.

Between May 2006 and September 2015, there were 6 incidents of deliberate misuse, and one near miss. Since April 2016 there have been 5 incidents of deliberate misuse at the crossing, and there has been one near miss. On 12 August 2016 there was a collision.

An authorised user questionnaire was received in December 2016 giving indicative usage of the level crossing across the whole year. This specified 16 traverses per day with different types of vehicles.

## Rights affected

This is a private accommodation crossing. An associated agricultural track passes east to west through flat agricultural fields to the Nairns No 117 level crossing. On the eastern side of the railway a private track heads north between Railway Farm and the railway towards the A1123 road.

There are no public rights of way at this level crossing.

## Order proposals

The Order would confer powers to close the level crossing and to extinguish the existing private vehicular rights over it. Crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway. Users would be diverted via the existing private track on either side of the railway over which new private rights would be granted, giving access to Newmarket Road A1123 and Dimmocks Cote level crossing. That crossing has an ALCRM of D1 and is an active crossing with automatic half barriers.

## Land permanently affected by the proposals

None

## Relevant objections

There have been 8 objections to the proposed closure of this level crossing, all of which relate to the impact of the proposals on one farming business, including its subsidiary companies. The objectors are OBJ/15 (Johnathan Stiff on behalf of FC Palmer \& Sons and subsidiaries), OBJ/38 (Lucy Fraser QC MP on behalf of FC Palmer \& Sons), OBJ/39 (Ian Palmer), OBJ/40 (David Palmer), OBJ/41 (Adam Palmer), OBJ/42 (Kier Petherick on behalf of F C Palmer \& Sons), OBJ/43 (Martin Rogers on behalf of the National Farmers Union (NFU)) and OBJ/51 (Luke Palmer).

There have been three letters supporting the proposed closure: SUPP/2 (Andy Tyler on behalf of the Fen Lien Users Association), SUPP/3 (Kieron Parnell) and SUPP/4 (Caroline Parnell).

## Nature of the objections

The objections relate to the impact of the proposals on the farming business of FC Palmer and Sons. The NFU has objected to the closure of a number of crossings on the grounds of potential impact on agricultural businesses.

Network Rail will continue to engage with the NFU as well as the stakeholders concerned to see how the issues they raise may be addressed.

## C03 West River Bridge

## Location

This footpath crossing is located in Thetford Parish and has the postcode CB6 3HR. It is on the Liverpool Street to Ely railway line (BGK), 67 miles 22 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheets 24,25 and 26.

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 02A;
in respect of powers limited to rights: 01, 02A, 03, 04 and 05;
in respect of powers limited to extinguishment of rights: 02;
all in the Parish of Thetford, and
in respect of powers limited to rights: 01, 02, 03, 04 and 07;
in the Parish of Stretham.

## Nature of level crossing

This is a passive footpath level crossing with stiles in the railway boundary fence (FPS). Users are instructed to stop, look and listen, beware of trains, and must make their own decision whether it is safe to cross. Sighting is considered sufficient and there are no whistle boards.

The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, and has a line speed of up to 75 mph (up) and 90 mph (down). The ALCRM score for this crossing is C6.

On 23 June 2000 June there was a suicide at this crossing. Between 2011 and 2015, there was one near miss involving youths.

A 9-day census by camera, carried out from 08/06/2013 to 16/06/2013, between the hours of 0600 and 2400, recorded no usage of this level crossing.

## Rights affected

The level crossing is traversed by an unsurfaced footpath path (FP7) which passes along the southern side of the River Great Ouse on top of the flood bank. To the east of the crossing FP7 connects to a footbridge which spans the river, linking the footpath on the north bank. Fields border the River Great Ouse and there is a large body of water to the southwest of the level crossing. There is a break in the line of FP7 where it crosses the railway.

The private rights to use this level crossing were released in 1998, and none remain.
Network Rail access rights to the site of the existing crossing would be retained.

## Order proposals

The Order would confer the power to close the level crossing to all users and extinguish existing public rights of way over the crossing. Users would be diverted via a new 2 m wide footpath, approximately 50 m in length, to cross the railway under the existing railway bridge (Network Rail bridge BGK/1157). It is proposed that the new footpath will have gravel/stone surfacing where it passes beneath the bridge. Crossing infrastructure would be removed and fencing would be installed to prevent trespass on the railway. New signage would be provided. There should be no significant impact on the length of the route.

## Land permanently affected by the proposals

The parcel of land affected by the proposed diversion and associated works is parcel 2 A .

## Relevant objections

$\mathrm{OBJ} / 12$ (Cambridgeshire County Council) has a holding objection pending review of flood data.

There were no other objections specific to the proposed closure of this crossing.
There is one letter of support specifically in support of the closure, being SUPP/2 (Andy Tyler on behalf of the Fen Line Users Association).

## C04 No. 20

## Location

This footpath crossing is located in Meldreth Parish and has postcode SG8 6JR. It is on the King's Cross to Cambridge railway line (SBR) 47 miles 51 chains from King's Cross.

## Where it can be found on the deposited plans

See sheet 36 .

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 01, 02, 04, 08, 10, 12, $13,14,15,18,20,21,23,24,25,26$ and 27 ;
in respect of powers limited to rights: $05,09,11$ and 16 ; and
in respect of powers limited to extinguishment of rights: 17;
all in the Parish of Meldreth.

## Nature of level crossing

This is a passive footpath level crossing with stiles in the railway boundary fence (FPS). Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, and has a line speed of up to 90 mph .

The ALCRM score for this crossing is C5. One near miss was recorded on 17 December 2016.

A 9 day camera census undertaken between 18 and 26 June 2016 with survey hours 00:00 to 24:00 recorded a total of 53 pedestrians using the crossing over the course of the 9 days.

## Rights affected

The level crossing is currently traversed by footpath FP10. On the west side of the railway to the south of Meldreth Station, FP10 runs as an unsurfaced path crossing south east through fields with scattered trees, hedgerow and fencing to the level crossing. On the eastern side of the railway the unsurfaced path heads east towards Melbourn on a field boundary track to join a bridleway (BR12) near St John's Farm.

The private rights to use this level crossing were released in 1981, and none remain.

## Order proposals

The Order would confer the power to close the level crossing to all users and extinguish existing public rights of way over it. Users would be diverted via a new 2 m wide unsurfaced footpath, approximately 400 m in length, on the western side of the railway along the field margin away from Network Rail's land, passing northwards before joining the footway on Station Road, which crosses the railway by way of a bridge. On the eastern side of the railway, the existing footpath heading east from the level crossing would be extinguished. A new section of 2 m wide unsurfaced footpath, approximately 100m in length, would be created along the field boundary, outside of Network Rail land, adjacent to Station Road to link to the existing bridleway (BR12). Approximately 300m of the existing footpath would be stopped up. Crossing infrastructure would be removed and fencing installed to prevent trespass on the railway. New signage would be provided.

## Land permanently affected by the proposals

The parcels of land affected by the proposed diversion: $01,02,04,08,10,12,26$ and 27.

## Relevant Objections

There have been 13 objections to the proposed closure of this level crossing:
OBJ/2 (Roger and Jill Braham), OBJ/9 (Susan van de Ven, as County Councillor for Meldreth), OBJ/10 (Geoffrey Grimmet), OBJ/11 (Graham Borgonon), OBJ/12 (Cambridge County Council), OBJ/17 (David Robinson), OBJ/43 (NFU), OBJ/45 (Roger James), OBJ/48 (A P Burlton (Turkeys) Ltd), OBJ/49 (Anthony Burlton Will Trust), OBJ/50 (Anthony Burlton 2011 Trust), OBJ/49 (Anthony Burlton Will Trust) and OBJ/53 (Barbara James).

There is one letter of support in support of the closure, being SUPP/2 (Andy Tyler on behalf of the Fen Line Users Association).

## Nature of the objections

$\mathrm{OBJ} / 48, \mathrm{OBJ} / 49$ and $\mathrm{OBJ} / 50$ relate to the location of the diversion, and the impact of the proposals on a particular farm and its biosecurity. The NFU objection also relates to biosecurity risk to agricultural land. Network Rail will continue to engage with the relevant stakeholders to see how the issues they raise may be addressed.
$\mathrm{OBJ} / 9, \mathrm{OBJ} / 10, \mathrm{OBJ} / 45$, and $\mathrm{OBJ} / 53$ were based on a lack of evidence to justify the need for the closure of the crossing, and that the proposed diversion is less safe than the existing situation. Network Rail's justification for closing level crossings is explained above, and road safety audits were carried out for proposed diversions. $\mathrm{OBJ} / 2, \mathrm{OBJ} / 11$ and $\mathrm{OBJ} / 13$ are also concerned with the location of the diversion.

OBJ/12, OBJ17, OBJ/10 and OBJ/11 all refer to loss of amenity. Network Rail considers that the proposed route is suitable and convenient. The maximum increase in distance is around 324 m . Network Rail will continue to engage with the relevant stakeholders to mitigate any highway safety issues, noting that any diversion must be constructed and completed to the reasonable satisfaction of the highway authority.
$\mathrm{OBJ} / 17$ and OBJ/45 also objected that the notification process was misleading and discriminatory. Network Rail does not accept this. In particular, Network Rail complied with the relevant legislative requirements of the 2006 Rules in relation to giving notice of the application and objection period.

## C07 No 37

## Location

This footpath crossing is located in Harston Parish and has the postcode CB22 7PH. It is on the King's Cross to Cambridge railway line (SBR), 52 miles 75 chains from King's Cross.

## Where it can be found on the deposited plans

See sheets 34 and 35 .

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 01, 02, 03, 03A, 05, 05A, 06, 07, 08, 10, 12, 13, 16, 18, 19, 23, 24 and 27;
in respect of powers limited to rights: 22;
in respect of powers limited to extinguishment of rights: 04
all in the Parish of Harston.

## Nature of level crossing

This is a passive footpath level crossing with wicket gates in the railway boundary fence (FPW). Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight, with a line speed of up to 90 mph.

The ALCRM score for this crossing is C6. There was 1 accident and 1 suicide at this crossing between 2011 and 2015.

During June 2016 a nine day, 24 -hour census recorded 53 users over the period, an average of 6 per day.

## Rights affected

The footpath (FP4) is currently an unsurfaced path crossing south east from the village of Harston through agricultural fields with small areas of woodland and running parallel to a watercourse before reaching the level crossing. The unsurfaced path on the southern side of the railway heads south east in fields to join the B136.

The private rights to use this level crossing were released in 1988, and none remain.

## Order proposals

The Order would confer the power to close the crossing to all users and to extinguish existing public rights of way over the crossing. On the western side of the railway, users would be diverted via a new 3 m wide unsurfaced footpath, approximately 460 m in length, heading north east in fields to the B136. The diversion would continue south along a new 3 m wide unsurfaced footpath in field margin adjacent to the eastern side of the B136, for approximately 160 m , crossing a byway (BW3) and continuing as 2 m wide unsurfaced footpath for approximately 120 m before crossing the railway via the existing bridge on the B136. Stepped access would be provided from the new footpath on the north side of the railway to the footway on the existing bridge.

Stepped access would also be provided on the south side of the bridge connecting into a new 2 m wide unsurfaced footpath heading south for approximately 120 m in the field adjacent to the western side of the B136. A new hoggin path approximately 120 m long would be provided in the highway verge between the end of the field footpath and the existing hoggin path in the western highway verge. Approximately 175 m of footpath on the western side of the railway leading to the level crossing would be extinguished. The ongoing footpath from the crossing to Station Road, approximately 500 m in length, would also be extinguished. Crossing infrastructure would be removed and fencing installed to prevent trespass on the railway. New signage would be provided.

## Land permanently affected by the proposals

The parcels of land affected by the proposed diversion are parcels $3,6,7,8,12$ and 23.

## Relevant objections

There are five objections relating specifically to the closure of this crossing: OBJ/5 (Jill Tuffnell), OBJ/12 (Cambridgeshire County Council), OBJ/25 (Robin Clarke on behalf of William and Henry Hurrell), OBJ/26 (The Ramblers) and OBJ/52 (Cambridgeshire Local Access Forum).

There is one letter of support to the proposed closure, being SUPP/2 (Andy Tyler of the Fen Line Users Association).

There are two representations relating specifically to the closure of this crossing: REP/1 (Harston Parish Council) who support the closure of the crossing but specify that the diversion route must be operational before closure of the level crossing. This is already a requirement of the Order. REP/2 (Janet Lockwood as District Councillor for Harston and Hauxton), who suggests further improvements on the diversionary route.

## General nature of the objections

Two of the five objections (OBJ/5 and OBJ/52) are concerned about loss of amenity for users of the footpath network and the adequacy of the alternative route and associated arrangements. $\mathrm{OBJ} / 5$ and $\mathrm{OBJ} / 52$ also objected on the basis of the safety of alternative routes, although they specifically acknowledge the desirability of creating an alternative route unless the crossing provides high levels of safety. OBJ/12 (Cambridgeshire County Council) and OBJ/26 (Ramblers) are holding objections. Network Rail notes that the alternative route proposed in the Order is not significantly longer than the current route and Network Rail considers that it is convenient and suitable for existing users.

OBJ 25 objected on grounds of disruption to farming activity. Network Rail will continue to engage with the relevant landowners to see how the issues they raise may be addressed. Another concern raised by this objector was that notices were served inaccurately. Network Rail complied with the legislative requirements of the 2006 Rules in relation to notification.

## C08 Ely North Junction

## Location

This footpath crossing is in Ely Parish and has the postcode CB7 4TZ. It is on the Ely to Peterborough railway line (EMP) 72 miles 1 chain from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 18.

## Affected land

The parcels of land affected are:
in respect of powers limited to temporary use of land: 59, 62, 63, 64, 65, 67, 67B, 67C and 69;
in respect of powers limited to rights: 60 and 61; and
in respect of powers limited to extinguishment of rights: 67A;
all in the Parish of Ely.

## Nature of level crossing

This is a passive level crossing with stiles in the railway boundary fence (FPS). Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, and has a line speed of up to 60 mph .

The ALCRM score for this crossing is C6. A 9 day camera census undertaken between 18 and 26 June 2016 recorded 11 pedestrians in total using the crossing.

## Rights affected

There are no private rights of way at the level crossing.
The level crossing is currently traversed by an unsurfaced footpath (FP11). The public right of way crosses north east through agricultural fields to the level crossing. On the eastern side of the railway line the unsurfaced footpath heads east, then north along a parallel railway line to join Ely Road.

## Order proposals

The Order would confer the power to close the level crossing to all users and extinguish existing public rights of way over the crossing. To the west of the railway, users would be diverted via a new 2 m wide unsurfaced footpath, approximately 150 m in length, heading north within field margins before entering Network Rail land. It would continue on Network Rail land past the residential dwellings to the west before narrowing to a minimum of 1.5 m wide gravel/stone surfaced footpath leading to Queen Adelaide (Peterborough) where users would cross the railway. Users would continue east along Ely Road using the existing southern footway. Approximately 60 m of existing footpath immediately east of Ely North level crossing would be extinguished. Crossing infrastructure would be removed and fencing would be installed to prevent trespass onto the railway. The diversion would significantly reduce walking adjacent to the main road when compared to Network Rail's original proposal and, having taken account of consultation feedback, it is now a similar length to the existing arrangement.

## Land permanently affected by the proposals

The parcels of land affected by the proposed diversion are parcels 59, 67, 67B and 67C.

## Relevant objections

There are 10 objections to the proposed closure of this crossing: OBJ/5 (Jill Tuffnell), OBJ/12 (Cambridgeshire County Council), OBJ/17 (David Robinson), OBJ/22 (Maureen Akred), OBJ/26 (The Ramblers), OBJ/30 (Colin Faux), OBJ/37 (Paul Seymour), OBJ/46 (Dr J Guy), OBJ/47 (DS Smith Packaging Limited) and OBJ/52 (Cambridgeshire Local Access Forum).

## Nature of the objections

Of the 10 objections, 5 (OBJ/5, OBJ/12, OBJ/17, OBJ/26 and OBJ/52) relate to the loss of amenity for users. The alternative route is not significantly longer than the current route and Network Rail has improved its proposal and considers that it is a convenient and suitable replacement for the existing arrangement. OBJ/26 is also concerned with Network Rail's justification for closing the crossing. Network Rail addresses the case for closure in this Statement of Case.

4 of the objections $\mathrm{OBJ} / 22$, $\mathrm{OBJ} / 30, \mathrm{OBJ} / 37$ and $\mathrm{OBJ} / 46$ ) relate to security along the proposed new public rights of way, including loss of views and blight. OBJ/37 and OBJ/46 were also concerned about the adequacy of consultation. Network Rail's consultation is described elsewhere in this Statement of Case. It complied with the legislative requirements of the 2006 Rules and took account of feedback from a variety of interested parties. Network Rail will continue to engage with relevant stakeholders to see how the issues they raise may be addressed.
$\mathrm{OBJ} / 47$ is concerned with the potential impacts of the new public right of way on the large packaging factory at 55 Ely Road. It also refers the lack of clarity of the notice about the closure of the level crossing and acquisition of rights in land in which it has an interest, and a general lack of detailed information about the proposals as they may relate to the operation of its business. Network Rail complied with the legislative requirements of the 2006 Rules in relation to notification and the content of the notice was consistent with the Rules and practice. Network Rail requires temporary rights of access only and will continue to engage with the company to provide the detailed information it requires.

## C09 Second Drove

## Location

This footpath crossing is in the Ely Parish and has the postcode CB7 4UA. It is on the Ely to Peterborough railway line (EMP) 72 miles 55 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 8 .

## Affected land

The parcels of land affected are:
in respect of powers limited to temporary use of land: 15, 16, 17, 18, 19, 21, 22 and 23;
in respect of powers limited to rights: $14,20,24,25$ and 26 ; and
in respect of powers limited to extinguishment of rights: 18A;
all in the Parish of Ely.

## Nature of level crossing

This is a passive footpath level crossing with stiles in the railway boundary fence (FPS). Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight, and has a line speed of up to 60 mph .

This crossing is protected by whistle boards. Whistle boards are only effective between the hours 06:00-00:00. Outside these hours, drivers are not allowed to use their horns.

The ALCRM score for this crossing is C7. 1 incident of misuse was recorded between 2011 and 2015. A 9 day camera census undertaken between 18 and 26 June 2016 recorded a total of 6 pedestrians using the crossing (excluding railway personnel).

## Rights affected

There are no private rights of way at the level crossing.
The crossing is traversed by a footpath (FP49) which passes on an existing track through fields known as Second Drove in a north easterly direction.

## Order proposals

The Order would confer powers to close the level crossing to all users and extinguish the existing public rights of way over the crossing. Approximately 175m of FP49 on the western side of the railway would be extinguished and users would instead make use of existing bridleway (BR25) heading north east to Clayway level crossing, which has an ALCRM score of C6. Users would cross the railway at this crossing. New bridleway gates would be installed at Clayway level crossing in addition to the existing gates. Users would then be diverted onto a new 2 m wide unsurfaced footpath, approximately 175 m in length, running south along a field margin before connecting into an existing public footpath (FP49) on the eastern side of the railway. This will create a circular route to the west of the railway. Crossing infrastructure at Second Drove level crossing would be removed and fencing would be installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

The parcels of land affected by the proposed diversion and associated works are parcels 15, 16 and 23.

## Relevant objections

OBJ/31 (Environment Agency) has entered a holding objection to the proposed closure of this crossing and is seeking further information on how the proposals may affect its landholdings. Network Rail will liaise with the Environment Agency to ensure that it has the information it requires.

There are no other objections to the closure of this crossing.

## C10 Coffue Drove

## Location

This byway crossing (Byway 41) is located in Downham Parish and has the postcode CB6 1RX. It is on the Ely to Peterborough railway line (EMP) 74 miles 25 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 7 .

## Affected land

The parcels of land that are affected are:
in respect of powers limited to temporary use of land: 12, 15, 16 and 18; and in respect of powers limited to extinguishment of rights: 14;
all in the Parish of Downham.

## Nature of level crossing

Coffue Drove is a byway open to all traffic (BOAT) user worked crossing with telephone (UWCT). The railway at this crossing comprises 2 tracks, carrying passenger and freight, and has a line speed of up to 75 mph .

The ALCRM score for this crossing is C9. On 15 February 2017, there was on incident of deliberate misuse when a person crossed in front of an approaching train.

## Rights affected

There are no private rights of way at the level crossing.
Byway 41 runs in a north south direction across the railway via Coffue Drove level crossing, making use of a track, Coffue Drove, through agricultural fields. BW41 links to BW43 to the north and to BW44 and BW48 to the south. There is an existing underpass immediately west of Coffue Drove level crossing. There are fields with drainage ditches, scattered tress, and hedgerow on both sides of the railway adjacent to the byway.

## Order proposals

The Order would confer powers to close the level crossing to all users and to extinguish existing public rights of way over the crossing. Crossing infrastructure would be removed and fencing would be installed to prevent trespass onto the railway.

Users would be diverted to either a proposed byway open to all traffic (with any appropriate traffic regulation or other limitation) on an existing private track to the underpass immediately to the northwest, or along existing byways open to all traffic to Beald Drove level crossing to the northwest. The byway would have a width and height limitation through the underpass. Signing would be provided to indicate the limited width and headroom. The new byway would connect into the existing route (BW41) on the south and north side of the railway. Mounting blocks would be provided on both sides of the railway to allow horse riders to dismount safely before using the underpass. Large vehicles which would be unable to use the underpass would use Beald Drove level crossing, which has an ALCRM score of C6, to cross the railway via BW43.

## Land permanently affected by the proposals

The parcels of land affected by the proposed diversion and associated works are parcels 12 and 18.

## Relevant objections

None.

## C11 Furlong Drove

## Location

This byway open to all traffic crossing is located in Downham Parish and has the postcode CB6 2ER. It is on the Ely to Peterborough railway line (EMP) 76 miles 54 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheets 5 and 6 .

## Affected land

The parcels of land affected are:
in respect of powers limited to temporary use of land: 01, 02, 02A, 03, 07, 08, 09, 10 and 10A; and
in respect of powers limited to extinguishment of rights: 04,05 and 06 ;
all in the Parish of Downham.

## Nature of level crossing

This passive byway open to all traffic level crossing has a gate in the railway boundary fence (although the gate is not wide enough for vehicular access) (FPG). Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger trains, and has a line speed of up to 75 mph .

The ALCRM score at this crossing is C6. A 9 day camera census between 18 and 26 June 2016, with survey hours of 00:00 to 24:00, recorded a total of 6 pedestrians using the crossing. An ALCRM census in March 2017 recorded 2 incidents of use of the crossing.

## Rights affected

There are no private rights of way at the level crossing.
The byway concerned (BW33) heads north from Main Drove towards Furlong Drove level crossing and continues past Ash Tree Farm.

## Order proposals

The Order would confer powers to close the level crossing to all users and extinguish public rights of way over the crossing. Users would be diverted either along an existing byway (BW34) to Straight Furlong underbridge to the northwest of this level crossing or head south and cross the railway at Third Drove level crossing. A new 3 m wide unsurfaced bridleway, approximately 660 m in length, would be created to connect BW34 and O Furlong Drove and the existing footpath (FP8) would be upgraded to a bridleway, approximately 390m in length, between BOAT33 and Main Drove. Third Drove level crossing has automatic half barriers and an ALCRM score of D4. Crossing infrastructure would be removed and fencing would be installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

The parcels of land affected by the proposed diversion and associated works are parcels 2, 8, 9 and 10 .

## Relevant objections

There are 7 objections to the proposed closure of this crossing: OBJ/5 (Jill Tuffnell), OBJ/12 (Cambridgeshire County Council), OBJ/16 (B L Taylor), OBJ/19 (Ivan Martin \& Son), OBJ/26 (The Ramblers), OBJ/43 (NFU) and OBJ/52 (Cambridgeshire Local Access Forum).

## Nature of the objections

4 of the 7 objections (OBJ/5, OBJ/12, OBJ/26 and OBJ/52) objected on the basis of the loss of amenity to existing users. Network Rail considers that the alternative route is not significantly longer and is a convenient and suitable replacement for existing users.

OBJ/26 also objected to the need to close the crossing. Network Rail addresses the case for closure of level crossings elsewhere in this Statement of Case.

The remaining 3 objections ( $\mathrm{OBJ} / 16 \mathrm{OBJ} / 19 \mathrm{OBJ} / 43$ ) related to the effect of the diversion route on farming businesses. $\mathrm{OBJ} / 19$ is also concerned about the adequacy of consultation. Network Rail will continue to engage with the relevant stakeholders to see how the issues they raise may be addressed.

## C12 Silt Drove

## Location

This public road level crossing is located in March Parish and has the postcode PE15 ODB. It is on the Ely to Peterborough railway line (EMP) 84 miles 69 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 4.

## Affected land

The parcels of land affected are as follows:
in respect of unrestricted powers to acquire land: 16 and 17;
in respect of powers limited to temporary use of land: 11, 12, 13 and 15; and
in respect of powers limited to extinguishment of rights: 14;
all in the Parish of March.

## Nature of level crossing

This crossing is a public highway user worked crossing with a telephone (UWCT). It also has stiles in the railway boundary fence (FPS). The railway at this crossing comprises 2 tracks, carrying passenger and freight, and has a line speed of up to 60 mph .

The ALCRM score for the UWCT crossing is B4 and for the FPS crossing the ALCRM score is C5. A 9 day camera census between 18 and 26 June 2016 with survey hours of $00: 00$ to $24: 00$ recorded 334 pedestrians and 62 cyclists or equestrians using the crossing. Between 2011 and 2015 there were 10 incidents of misuse and 5 near misses at the UWCT crossing. A further near miss was recorded on 21 October 2016. At the FPS type crossing between January 2012 and July 2015 2 near misses (one incident involving a suicidal person) and 2 incidents of misuse were recorded.

## Rights affected

There are no private rights of way at the level crossing.
Silt Road is a public road running north from Upwell Road to Silt Drove level crossing, before continuing north east to Badgeney Road. Silt Road has arable fields on both sides, and there is a dense area of residential properties approximately

175 m to the west. There are several properties adjacent to Silt Road including Rose Cottage and Meadow Croft to the south of the railway.

## Order proposals

The Order would confer powers to downgrade the existing public rights over the level crossing to bridleway status. Silt Drove level crossing would remain a user worked vehicular crossing, but for registered users only (who would be granted private rights). Bridleway gates, mounting blocks and vehicular turning heads would be provided on both sides of the railway. Motorised users would be diverted from the south of Silt Drove crossing via Upwell Road and Badgeney Road to Badgeney Road level crossing (a half barrier level crossing with an ALCRM score of C3) to reconnect with the continuation of Silt Road.

## Land permanently affected by the proposals

The parcels of land affected by the proposals are parcels 16 and 17.

## Objections

There is 1 objection to the proposed closure of this crossing, being OBJ/43 (NFU).
The general nature of the objection is that closure of crossings could lead to farm traffic having to pass through a housing estate.

## C13 Middle Drove

## Location

This public road level crossing is located in the March Parish and has the postcode PE15 OAJ. It is on the Ely to Peterborough railway line (EMP) 87 miles 75 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 3 .

## Affected land

The parcels of land affected are as follows:
in respect of unrestricted powers to acquire land: 02B, 03, 09 and 10;
in respect of powers limited to temporary use of land: 01, 02, 04, 06, 07 and 08; and
in respect of powers limited to extinguishment of rights: 05;
all in the Parish of March.

## Nature of level crossing

The crossing is a public road user worked crossing with miniature stop lights and telephone (UWCM+T). The crossing also has wicket gates in the railway boundary fence with miniature stop lights (FPWM). The railway at this crossing comprises 2 tracks, carrying passenger and freight, with a line speed of up to 75 mph .

The UWCM + T crossing has an ALCRM score of B4 and the FPWM crossing has an ALCRM score of C5. At the UWCM+T crossing, between May 2008 and March 2015, there were 2 near misses and 8 incidents of deliberate misuse. A 9 day camera census between 18 and 26 June 2016 with survey hours of 00:00 to 24:00 recorded 34 vehicles (of which 26 included walking and/or pushing of a bicycle) and 43 pedestrians using the crossing.

## Rights affected

There are no private rights of way at this level crossing.
Currently, the public road crosses the railway.

## Order proposals

The Order would confer powers to downgrade the existing public rights over the level crossing to bridleway status, with a user worked crossing for registered users, who would be granted private rights.

Motorised users would be diverted to Whitemoor Drove level crossing to the east along existing adopted highway. That crossing has automatic half barriers and an ALCRM score of D4.

New bridleway gates and mounting blocks would be provided on both sides of the railway at the downgraded level crossing. The existing telephone and miniature stop lights would be retained.

## Land permanently affected by the proposals

The parcels of land affected by the proposals are parcels 02B, 03, 09 and 10.

## Relevant objections

There are 5 objections to the proposed closure of this crossing: OBJ/3 (Ian and Kim Robins), OBJ/20 (Tony Alterton), OBJ/21 (Tony Alterton and Miss J Avison on behalf of the Trustees for Alterton and Avison Landowners), OBJ/28 (Fenland District Council) and OBJ/43 (NFU).

## Nature of objections

4 of the 5 objectors (OBJ/20, OBJ/21, OBJ/28 and OBJ/43) are concerned about loss of access. Network Rail proposes to grant private rights and will continue to engage with the relevant stakeholders to confirm these details.

OBJ/3 was supportive of the downgrade in principle but concerned about potential indirect impacts from the closure such as flytipping and antisocial behaviour, the scale of the proposed bridleway and about a failure to send them correspondence in relation to the closure. Network Rail is confident that it complied fully with the legislative requirements of the 2006 Rules in relation to notification of the application and consultation generally on the scheme. It will continue engagement with this objector to seek to allay its concerns regarding the impacts of its proposals.

## C14 Eastrea Cross Drove

## Location

This footpath level crossing is located in Whittlesey Parish and has the postcode PE7 2HG. It is on the Ely to Peterborough railway line (EMP) 93 miles 5 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 2.

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: $31,33,35,36,37,38$, 39, 40, 41 and 42; and
in respect of powers limited to extinguishment of rights: 43;
all in the Parish of Whittlesey.

## Nature of level crossing

This is a passive (footpath) level crossing with stiles in the railway boundary fence. Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, and has a line speed of up to 75 mph .

The ALCRM score for this crossing is C6. One near miss was recorded between 2011 and 2015. A 9 day camera census was undertaken between 18 and 26 June 2016, with survey hours 00:00 to 24:00. 2 pedestrians were recorded using the crossing during this period. A subsequent ALCRM census in August 2016 recorded 1 user of the crossing.

## Rights affected

There are no private rights of way at the level crossing.
The existing footpath FP50 is located on the south of Eastrea. It links Wype Road to a footpath (FP52), which then links to a byway (BW51) and a bridleway (BR60). The existing footpath FP50 crosses the railway at Eastrea Cross Drove level crossing. Users of the local footpath network can also cross the railway at Eastrea level crossing on Wype Road and at Baileys level crossing on FP52.

## Order proposals

The Order would confer powers to close the level crossing to all users and extinguish public rights of way over the crossing. It would divert FP50 on the north of the railway via a new 2 m wide unsurfaced footpath in field margin, heading west to connect to BW49 Lake Drove. This new footpath would be approximately 70 m in length. A steel footbridge ( $>8 \mathrm{~m}$ in length) would be provided across a drainage ditch along the new footpath route. Users would then head south east on Wype Road using existing verges to cross the railway at Eastrea level crossing. Approximately 350m of FP50 to the south of the railway would be extinguished. Crossing infrastructure would be removed and fencing would be installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

The parcels of land affected by the proposals for C14 Eastrea Cross Drove and C15 Brickyard Drove are parcels 6, 8, 9, 10, 14, 15, 16, 17, 21, 22, 23, 24A, 25, 32, 33, $35,36,37,38,39,40,41$ and 42.

## Relevant objections

There are 2 objections to the proposed closure of this level crossing: OBJ/23 (M White) and OBJ/43 (NFU).

## Nature of the objections

$\mathrm{OBJ} / 23$ is concerned about development in proximity to a drainage channel and impact on agricultural land. The Order contains specific provisions relating to protection of drainage assets, and Network Rail will continue to engage with this objector with a view to explaining its proposals and allaying his concerns.
$\mathrm{OBJ} / 43$ is concerned that the proposals would create an area of unusable agricultural land. Network Rail will continue to engage with the relevant stakeholders regarding its proposals at this location.

## C15 Brickyard Drove

## Location

This footpath crossing is located in Whittlesey Parish and has the postcode PE7 $2 A Z$. It is on the Ely to Peterborough railway line (EMP) 93 miles 43 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 1.

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 02, 06, 08, 09, 10, 11, $12,13,14,15,16,17,20,21,22,23,24,24 \mathrm{~A}, 25,26,27,28,29,30,31,32$ and 33 ;
in respect of powers limited to rights: 01, 05, 07, 18 and19; and
in respect of powers limited to extinguishment of rights: 03;
all in the Parish of Whittlesey.

## Nature of level crossing

This passive footpath level crossing has stiles in the railway boundary fence (FPS). Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks. carrying passenger and freight trains, with a line speed of up to 75 mph .

The ALCRM score for this crossing is C10. A suicide was recorded at this level crossing in 2006. A 9 day camera census was undertaken between 18 and 26 June 2016 with survey hours 00:00 to 24:00. Over this period, a total of 22 pedestrians were recorded using the crossing.

## Rights affected

There are no private rights of way at this level crossing.
The existing footpath (FP48) is located south of Eastrea. It links Benwick Road to a byway (BW60), which then links to BW49 at the junction with Wype Road. The existing footpath crosses the railway at Brickyard Drove level crossing. FP41 runs along the north of the railway between Fen Lots Drove and Brickyard Drove level crossing.

## Order proposals

The Order would confer powers to close the level crossing to all users and extinguish public rights of way over the crossing. It would divert FP48, on the south of the railway, north east along an existing track towards the Eastrea level crossing via a new 2 m wide unsurfaced footpath, including crossing a field around Jamwell Farm. This new footpath would be approximately 460 m in length heading east and then northeast to Wype Road and a new footbridge (approximately 5 m in length) would be required to cross a small water feature. Users would cross the railway via Eastrea level crossing using existing verges. Approximately 164m of FP48 to the south of the railway would be extinguished. Crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

The parcels of land affected by the proposals for C14 Eastrea Cross Drove and C15 Brickyard Drove are parcels 6, 8, 9, 10, 14, 15, 16, 17, 21, 22, 23, 24A, 25, 32, 33, $35,36,37,38,39,40,41$ and 42.

## Relevant objections

There are 4 objections to the proposed closure of this level crossing: OBJ/4 (Denise Livingston on behalf of the Bird family), OBJ/6 (Phil Gray on behalf of the Whittlesey Charity), OBJ/34 (Mr J D Fountain and Mr D Fountain) and OBJ/35 (E C Brown \& Sons).

## Nature of the objections

$\mathrm{OBJ} / 4$ is concerned about loss of amenity resulting from the closure and impact of the diversion route on their property. The alternative route is not significantly longer and Network rail considers that the replacement route is suitable and convenient for existing users.
$\mathrm{OBJ} / 6, \mathrm{OBJ} / 34$ and OBJ/35 objected to the use of their land for the diverted footpath and impact on farming practices. Network Rail will continue to engage with the relevant stakeholders to see how the issues raised may be addressed.
$\mathrm{OBJ} / 4$, OBJ/06 and OBJ/34 were also concerned about the adequacy of consultation. Network Rail's consultation is described elsewhere in this Statement of Case. It complied with the legislative requirements of the 2006 Rules and took account of feedback from a variety of interested parties.

## C16 Prickwillow 1

## Location

This footpath crossing is located in Ely Parish and has the postcode CB7 4UP. It is on the Ely to Norwich railway line (ETN) 74 miles 28 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 17.

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 43, 44, 45, 46A, 48, 49, $50,51,52,54,55$ and 56; and
in respect of powers limited to extinguishment of rights: 46 and 54A;
all in the Parish of Ely.

## Nature of crossing

This level crossing is a passive (footpath) level crossing. Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, with a line speed of up to 75 mph .

This level crossing is currently closed temporarily due to safety issues. There is insufficient sighting at this level crossing and it is protected by whistle boards. These are only effective between the hours of 06:00-00:00. Outside these hours train drivers are not allowed to use their horns.

The ALCRM score for this level crossing is M13.

## Rights affected

There are no private rights of way at this crossing.
The crossing, located approximately 370m north of the Main Street, Prickwillow is currently traversed by a footpath. FP57 runs along Branch Bank, east of the River Lark and FP17 runs along the west bank, Padnal Bank.

## Order proposals

The Order would confer powers to close the level crossing to all users and extinguish the existing public rights of way over the crossing. It would divert FP17 to the south of the railway, north along Padnal Bank to cross the railway via an existing underbridge just west of the current level crossing. Users could then continue along FP17 to the north of the railway. Steps would be provided on both sides of the railway to provide access down the embankment from FP17 to the existing underbridge. Crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

The parcels of land affected by the proposals are parcels 44, 48, 52 and 55.

## Objections

OBJ/31 (Environment Agency) has entered a holding objection to the proposed closure of this crossing and is seeking further information on how the proposals may affect its landholdings. Network Rail will liaise with the Environment Agency to ensure that it has the information it requires.

There are no other objections to the closure of this crossing.

## C17 Prickwillow 2

## Location

This footpath crossing is located in Ely Parish and has the postcode CB7 4UP. It is on the Ely to Norwich railway line (ETN) 74 miles 30 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 17 .

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 43, 44, 45, 46A, 48, 49, $50,51,52,54,55$ and 56 ; and
in respect of powers limited to extinguishment of rights: 46 and 54A;
all in the Parish of Ely.

## Nature of level crossing

This level crossing is a passive (footpath) level crossing. Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, with a line speed of up to 75 mph .

This level crossing is closed temporarily due to safety issues. There is insufficient sighting at this level crossing. The level crossing is protected by whistle boards. These are only effective between the hours of 06:00-00:00. Outside these hours train drivers are not allowed to use their horns.

The ALCRM score for this crossing is M13.

## Rights affected

There are no private rights of way at the level crossing.
The crossing is located approximately 370m north of the Main Street, Prickwillow and is currently traversed by FP17. FP57 runs along Branch Bank, east of the River Lark while FP17 passes along the west bank, Padnal Bank.

## Order proposals

The Order would confer powers to close the level crossing to all users and extinguish public rights of way over the crossing. FP57 to the south of the railway would be diverted north along Branch Bank to cross the railway via an existing underbridge just to the east of the existing level crossing. Users could then continue along FP57 to the north of the railway. Steps would be provided on both sides of the railway to provide access down the embankment from FP57 to make use of the existing underbridge. Crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

The parcels of land affected by the proposals are parcels 44, 48, 52 and 55.

## Relevant objections

There have been no objections to the proposed closure of this level crossing.

## Nature of the objections

Not applicable.

## C20 Leonards

## Location

This footpath crossing is located in Soham Parish and has the postcode CB7 5HX. It is on the Ely to Bury St Edmunds railway line (SOB2) 7 miles 17 chains from Newmarket (Old) Station.

## Where it can be found on the deposited plans

See sheet 20.

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 01, 02, 02A, 02B, 03, 03A, 03B, 04, 04A, 06, 06A, 06B, 07, 08, 10, 11, 11A, 15, 16, 17 and 19; and
in respect of powers limited to extinguishment of rights: 05;
all in the Parish of Soham.

## Nature of level crossing

This passive (footpath) level crossing has kissing gates in the railway boundary fence. Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, with a line speed of up to 75 mph .

The ALCRM score for this level crossing is D6. A 9 day camera census was undertaken between 18 and 26 June 2016 with survey hours 00:00 to 24:00. 181 pedestrians were recorded as using the crossing during this period.

## Rights affected

There are no private rights of way at the level crossing.
The crossing is traversed by a footpath (FP101), which is an unsurfaced path that runs in a north easterly direction through agricultural fields from Mill Drove, a public road, approximately 90 m west of the crossing, to a sluice where it joins FP100, approximately 170 m to the north east of the crossing. The immediately surrounding area is predominantly agricultural with Mill Drove Farm and some residential properties along Mill Drove. A footpath (FP114) and byway (BW113) provide the onward links to the west of Mill Drove.

## Order proposals

The Order would confer powers to close the level crossing to all users and extinguish public rights of way over the crossing. 190m of FP101 between Mill Drove and a point 90 m to the east of Leonards level crossing would be extinguished. A section of FP114, approximately 110 m long, to the west of Mill Drove would also be extinguished. Leonards level crossing users would be diverted north to Mill Drove level crossing, which has an ALCRM score of D4. FP114 would be reinstated on the ground (for a distance of approximately 350m) as an unsurfaced path from the point where it meets BW113 in the south to the field boundary to the north east. From this point a new 2 m wide unsurfaced footpath would be created. Along the field margin around Mill Drove Farm (approximately 230m in length) and users would then make use of the existing verge and carriageway on Mill Drove, crossing the railway at Mill Drove level crossing.

A new 2 m wide unsurfaced footpath approximately 260 m in length would be provided on the east side of the railway connecting Mill Drove to FP101,. A composite steel and timber footbridge ( 6 m in length) would be required to cross an existing drainage ditch adjacent to Mill Drove along the new footpath route. Crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

The parcels of land affected by the proposals are parcels $2,3 \mathrm{~A}, 6,6 \mathrm{~A}, 7,8,15,16$ and 17.

## Relevant objections

There are 5 objections to the proposed closure of this level crossing: OBJ/5 (Jill Tuffnell), OBJ/12 (Cambridgeshire County Council), OBJ/18 (Trustees of Alison Susan Gray 2008 Discretionary Settlement), OBJ/26 (The Ramblers) and OBJ/52 (Cambridgeshire Local Access Forum).

## Nature of the objections

4 of the objections (OBJ/5, OBJ12, OBJ26 and OBJ/52) are concerned with loss of amenity to users and adequacy of the alternative route. The alternative route is not significantly longer than the current route and Network Rail considers that it is a suitable and convenient replacement for existing users.
$\mathrm{OBJ} / 12$ and $\mathrm{OBJ} / 26$ also questioned the need for the closure of the crossing. Network Rail addresses these concerns elsewhere in this Statement of Case.
$\mathrm{OBJ} / 18$ is concerned with lack of detail and information provided on the proposed temporary acquisition of their land. The objection is also concerned about the adequacy of consultation. Network Rail complied with the legislative requirements of the 2006 Rules in relation to notification and the content of the notice was consistent
with the Rules and practice. Network Rail will continue to engage with the objector to provide the detailed information it requires.

## C21 Newmarket Bridge

## Location

This footpath crossing is located in Ely Parish and has the postcode CB7 4EX. It is on the Ely to Bury St Edmunds railway line (SOB2) 11 miles 75 chains from Newmarket (Old) Station.

## Where it can be found on the deposited plans

See sheet 19 .

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 70, 71, 73A, 74, 75, 78, 79, 80, 81, 82, 83, 84, 85, 87, 88 and 89; and
in respect of powers limited to extinguishment of rights: 73 and 86;
all in the Parish of Ely.

## Nature of level crossing

This is a passive (footpath) level crossing with wicket gates in the railway boundary fence. Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 1 track, carrying passenger and freight trains, with a line speed of up to 60 mph .

The ALCRM score for this crossing is C10. A 9 day camera census was undertaken between 18 and 26 June 2016 with survey hours 00:00 to 24:00. 152 pedestrians were recorded using the crossing during this period. One incident of deliberate misuse was recorded in 2006 involving a near miss, and users have been observed trespassing on the railway bridge to create a circular walk.

## Rights affected

There are existing private vehicular rights of way at this level crossing.
Public FP24 runs as an unsurfaced path crossing in a north south direction, along the east bank of the River Great Ouse and west of agricultural fields. To the north and south of the railway, the footpath follows the course of the river. The river is approximately 40 m west of the Newmarket Bridge crossing. Public FP23 runs parallel to FP24 on the west bank of the river.

## Order proposals

Existing private vehicular rights at the crossing would remain.
The Order would confer powers to close the crossing to public users. Public users would be able to make use of the existing metalled footpath to cross the railway via the existing underbridge to the west of the crossing, a diversion of approximately 50 m . Pedestrian crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

The parcels of land affected by the proposals are: 84,85 and 87 .

## Relevant objections

OBJ/12 (Cambridgeshire County Council) has submitted a holding objection for this level crossing pending review of flood data.

There have been no other objections to the proposed closure of this level crossing.

## C22 Wells Engine

## Location

This footpath crossing is located in Ely Parish and has the postcode CB7 4EX. It is on the Ely to Bury St Edmunds railway line (SOB2) 12 miles 3 chains from Newmarket (Old Station).

## Where it can be found on the deposited plans

See sheet 19 .

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 70, 71, 73A, 74, 75, 78, 79, 80, 81, 82, 83, 84, 85, 87, 88 and 89; and
in respect of powers limited to extinguishment of rights: 73 and 86;
all in the Parish of Ely.

## Nature of crossing

This is a passive user worked crossing with a telephone. It also has kissing gates in the railway boundary fence. Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 1 track, carrying passenger and freight trains, and has a line speed of up to 40 mph .

The ALCRM score for this crossing is C4. A 9 day camera census, undertaken between 18 and 26 June 2016 with survey hours 00:00 to 24:00, recorded 69 pedestrians were recorded as using the crossing. In 2016, there was incident of misuse and one near miss involving vehicular gates. The sighting is insufficient for vehicles (hence the presence of a telephone). Users have been observed trespassing on the railway bridge to create a circular walk.

## Rights affected

There are existing private vehicular rights of way at this level crossing.
The crossing is traversed by public footpath (FP23). This runs as an unsurfaced path crossing in a north south direction, along the west bank of the River Great Ouse and east of agricultural fields. To the north and south of the railway, the footpath follows the course of the river. The river is approximately 90 m east of the Wells Engine crossing. Public FP24 runs parallel to FP23 on the east bank of the river.

## Order proposals

The Order would confer powers to close the crossing to public users. The existing private user rights would be retained. Public users would be diverted to a route under the railway bridge to the east of the crossing, a diversion of approximately 190 m , by means of a new 2 m footpath with gravel/stone surfacing. Pedestrian crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

Parcel 73A is affected by the proposals.

## Objections

There are 3 objections to the proposed closure of this level crossing: OBJ/17 (David Robinson) OBJ/12 (Cambridgeshire County Council) and OBJ/31 (Environment Agency). Nature of the objections
$\mathrm{OBJ} / 17$ is concerned with loss of amenity for walkers. The alternative route is not significantly longer than the current route and Network Rail considers it to be a suitable and convenient replacement for existing users. OBJ/12 (Cambridgeshire County Council) has submitted a holding objection for this level crossing pending review of flood data. OBJ/31 is a holding objection pending further detail on how the proposals may affect its assets and statutory undertaking. Network Rail will continue to work the County Council and Environment Agency to resolve their concerns.

## C24 Cross Keys

## Location

This footpath crossing is located in Ely Parish and has the postcode CB7 4UE. It is on the Ely to King's Lynn railway line (BGK) 73 miles 18 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheets 9, 10, 11 and 12.

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 02, 03, 03A, 04, 05, 06, 06A, 07, 08, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38 and 39;
in respect of powers limited to rights: $09,10,12,13,14$ and 26 ; and
in respect of powers limited to extinguishment of rights: 40;
all in the Parish of Ely.

## Nature of the crossing

This is a passive level crossing with stiles in the railway boundary fence. Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, with a line speed of up to 80 mph .

The ALCRM score for this crossing is D7. A 9 day camera census was undertaken between 18 and 26 June 2016 with survey hours 00:00 to 24:00. 32 pedestrians were recorded using the crossing during this period.

## Rights affected

There are no private rights of way at the level crossing.
This level crossing is located at the end of the public footpath (FP50), which runs in a north easterly direction connecting with FP15 immediately east of the crossing and joining a bridleway (BR25), approximately 250 m to the south west. FP15 runs in a north south direction along the west bank of the River Great Ouse. The river is approximately 50 m east of the crossing.

## Order proposals

The Order would confer powers to close the level crossing to all users and extinguish public rights of way over the crossing. Users would be diverted along a new 2 m wide unsurfaced footpath (approximately 1.5 km in length) to the west of the railway and on existing FP15 to the east. The railway would be crossed via an existing underbridge or, to the south, via the C23 Adelaide crossing. Two steel footbridges each approximately 10 m long, with concrete bollards at each end to prevent misuse, are proposed across an existing drainage ditch along the route of the new footpath, as it heads north from existing level crossing. In addition, one composite (steel and concrete) footbridge 8 m in length would be provided along the new footpath to the south. Crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

The parcels of land affected by the proposals are: $2,3,3 A, 4,5,6,6 A, 8,27,29,31$, $32,33,35,38$ and 39.

## Relevant objections

There are 5 objections to the proposed closure of this level crossing: OBJ/5 (Jill Tuffnell), OBJ/26 (The Ramblers), OBJ/29 (Ely Group of Internal Drainage Boards), $\mathrm{OBJ} / 32$ (Chris Purlant on behalf of $\mathrm{A} L$ Lee Farming Co ) and $\mathrm{OBJ} / 52$ (Cambridgeshire Local access Forum).

There is one letter of support in support of the closure, being SUPP/2 (Andy Tyler on behalf of the Fen Line Users Association).

## Nature of the objections

3 of the 5 objections ( $\mathrm{OBJ} / 5$ and $\mathrm{OBJ} / 52$ ) relate to loss of amenity to users, safety concerns and the adequacy of the alternative route. The alternative route is not significantly longer than the current route and Network Rail considers that it is a suitable and convenient replacement for existing users.

OBJ/26 has no in-principle objection to the closure of this crossing and stopping up of the footpath at this location and is satisfied with the proposals put forward by Network Rail. The Ramblers' concern is to ensure that access from Ely to the Fen Rivers Way is maintained and that level crossing C23 Adelaide must remain open. That level crossing was removed from the project following the first round of public consultations and is not included in the Order.

OBJ/29 relates to role and interests of the Drainage Board. Network Rail will continue to work with the drainage board to allay its concerns.
$\mathrm{OBJ} / 32$ related to the diversion of pedestrians over arable land and construction access which is considered detrimental to environmental benefits created over
recent years on these field margins. OBJ/32 was also concerned about the adequacy of consultation. Network Rail's consultation is described elsewhere in this Statement of Case. It complied with the legislative requirements of the 2006 Rules and took account of feedback from a variety of interested parties. Network Rail will continue to engage with relevant stakeholders to see how this farmer's concerns may be addressed.

## C25 Clayway

## Location

This footpath crossing is located in Littleport Parish and has the postcode CB6 1NT. It is on the Ely to King's Lynn railway line (BGK) 75 miles 25 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 13.

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 27, 28, 29, 30, 32, 33 and 35 ; and
in respect of powers limited to extinguishment of rights: 34;
all in the Parish of Littleport.

## Nature of level crossing

This is a passive (footpath) level crossing with stiles in the railway boundary fence. Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, and has a line speed of up to 80 mph .

Sighting at this level crossing is poor. The level crossing is protected by 2 whistle boards, although they are only effective between the hours of 06:00-00:00. Outside these hours train drivers are not allowed to use their horns.

The ALCRM score for this crossing is C5. A 9 day camera census was undertaken between 18 and 26 June 2016 with survey hours 00:00 to 24:00. 119 pedestrians were recorded using the crossing during this period.

## Rights affected

There are no private rights of way at the level crossing.
Clayway crossing is located in a residential area on the eastern outskirts of Littleport. It is traversed by footpath FP11, which runs in a south easterly direction through the residential area, crosses Sandhill, a public road running parallel to the railway to the east, and joins FP15 and FP21 approximately 50m east of the crossing. The latter
two footpaths run north to south along the west bank of the River Great Ouse, which is located approximately 50 m east of the crossing at its nearest point.

## Order proposals

The Order would confer powers to close the level crossing to all users and extinguish public rights of way over the crossing. Users would be diverted to Padnal Road. A new 2 m wide asphalt footway approximately, 12 m in length, would be created next to the highway on Victoria Street, to the west of Sandhill level crossing. The diversion route on the east side of the crossing would make use of FP21 or the existing track along Sandhill to connect users to Sandhill level crossing (ALCRM score D2). A 2 m wide footpath would also be created on a private track to link the northern end of FP21 to the adopted highway on the east side of the crossing. FP11 to Clayway crossing on the west of the railway would be extinguished (approximately 100m in length) to prevent the creation of a cul-de-sac. Crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

The parcel of land affected by the proposals is parcel 30.

## Objections

There are four objections to the proposed closure of this level crossing: OBJ/5 (Jill Tuffnell), OBJ/12 (Cambridgeshire County Council), OBJ/26 (The Ramblers) and OBJ/52 (Cambridgeshire Local access Forum).

There is one letter of support in support of the closure, being SUPP/2 (Andy Tyler on behalf of the Fen Line Users Association).

## Nature of the objections

$\mathrm{OBJ} / 5, \mathrm{OBJ} 12$, OBJ26 and OBJ/52 had concerns about loss of amenity to users and adequacy of the alternative route. Network Rail is satisfied that it is a suitable and convenient replacement for existing users, and the proposed footway improvements around Sandhill level crossing will provide wider benefits.
$\mathrm{OBJ} / 26$ also questioned the need for the closure of the crossing. Network Rail addresses this issue elsewhere in this Statement of Case.

## C26 Poplar Drove

## Location

This crossing is located in Littleport Parish and has the postcode CB6 1FB. It is on the Ely to King's Lynn railway line (BGK) 76 miles 71 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 15 .

## Affected land

The parcels of land affected are as follows:
in respect of unrestricted powers to acquire land: 11B and 13B;
in respect of powers limited to temporary use of land: 01, 02, 03, 04, 05, 06, $07,08,09,10,11,11 \mathrm{~A}, 13,13 \mathrm{~A}, 14$ and 15; and
in respect of powers limited to extinguishment of rights: 12 and 12A
all in the Parish of Littleport.

## Nature of level crossing

This is a user worked vehicular crossing with a telephone.
The railway at this crossing comprises 1 track, carrying passenger and freight trains, and has a line speed of up to 90 mph .

Poplar Drove is a public road surfaced with tarmac to the east of the level crossing and has an unsealed surface to the west of the level crossing.

Network Rail's view is that the level crossing itself is a private (occupation) crossing, but this is disputed by the highway authority, which claims the crossing is a public road, in line with the status of the road on either side of the railway.

The ALCRM score for this crossing is B3. A 9 day camera census was undertaken between 18 and 26 June 2016 with survey hours 00:00 to 24:00. 18 vehicles and 5 pedestrians were recorded using the crossing during this period. An ALCRM census in March 2017 recorded 17 vehicles and 10 pedestrians used the crossing daily. Between 2006 and 2015 there were 8 incidents of deliberate misuse and 2 near misses at the crossing.

## Rights affected

As an occupation crossing, Network Rail's view is that it is for the usage of landowners adjoining the road that crosses the railway only.

## Order proposals

The Order would confer powers to downgrade public rights of way over the level crossing (if any) from a public road to a byway open to all traffic, with a width restriction, between prescribed points, of 1.525 m . Private vehicle rights would be granted to relevant landowners. Any other public motorised vehicles would be diverted to the A10 to the south. The existing telephone would remain and a locked vehicular gate, bridleway gates with mounting blocks and a turning head for vehicles would be provided. A new 3 m wide unsurfaced bridleway, approximately 500 m long, would be provided running north from Poplar Drove crossing on the east side of and adjacent to the railway, connecting into Willow Row Drove.

## Land permanently affected by the proposals

The parcels of land affected by the proposals are parcels 3, 6, 7, 10, 11B, 13, 13B, 14 and 15.

## Relevant objections

There are three objections to the proposed closure of this level crossing: OBJ/31 (Environment Agency), OBJ/32 (A L Lee Farming Co) and OBJ/43 (NFU).

There is one letter of support in support of the closure, being SUPP/2 (Andy Tyler on behalf of the Fen Line Users Association).

## Nature of the objections

$\mathrm{OBJ} / 31$ is a holding objection, pending further detail on how the proposals affect the landholdings of the Environment Agency and its statutory functions. Network Rail will continue to engage with the Environment Agency to clarify the impacts of its proposals and to allay any concerns.
$\mathrm{OBJ} / 32$ and $\mathrm{OBJ} / 43$ relate to the effect of the proposals on farming business and were also concerned about the adequacy of consultation. Network Rail's consultation is described elsewhere in this Statement of Case. It complied with the legislative requirements of the 2006 Rules and took account of feedback from a variety of interested parties. Network Rail will engage with relevant stakeholders to see how the issues raised may be addressed.

## C27 Willow Row/Willow Road

## Location

This byway open to all traffic crossing is located in Littleport Parish and has the postcode CB6 1EE. It is on the Ely to King's Lynn railway line (BGK) 77 miles 16 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 15 .

## Affected land

The parcels of land affected are as follows:
in respect of unrestricted powers to acquire land: 11B and 13B;
in respect of powers limited to temporary use of land: 01, 02, 03, 04, 05, 06, $07,08,09,10,11,11 \mathrm{~A}, 13,13 \mathrm{~A}, 14$ and 15; and
in respect of powers limited to extinguishment of rights: 12 and 12A;
all in the Parish of Littleport

## Nature of level crossing

The level crossing is a public byway open to all traffic user worked crossing. The railway at this crossing comprises 1 track, carrying passenger and freight trains, and has a line speed of up to 90 mph .

The ALCRM score for this level crossing is A3. Between 2006 and 2015, there were 3 incidents of misuse involving the gates being left open.

## Rights affected

There are no private rights of way at the level crossing. However, most usage is believed to be agricultural, by the adjoining landowner.

Willow Row Drove (BW30) crosses the railway at Willow Row/Willow Road level crossing. It has an unsealed surfaced.

## Order proposals

The Order would confer powers to extinguish all public rights over the level crossing. Those motorised users requiring access across the railway would cross at Poplar Drove (C26) crossing. Public motorised users would be diverted to Littleport Bypass level crossing to the south. A new 3 m wide unsurfaced bridleway, approximately 500 m long, would be provided running south from the level crossing on the east side of and adjacent to the railway, connecting into Poplar Drove. An 8m steel bridleway bridge would be provided across an existing drainage ditch. Approximately 470m of Willow Row Drive would be downgraded to a bridleway. The surface of the section of BW31 on the west side of the railway, which runs between Willow Row Drove and Poplar Drove, would be improved with gravel/stone where appropriate. Level crossing infrastructure would be removed and fencing provided to prevent trespass onto the railway.

## Land permanently affected by the proposals

The parcels of land affected by the proposals are parcels $3,6,7,10,11 B, 13,13 B$, 14 and 15.

## Objections

There are 9 objections to the proposed closure of this level crossing: OBJ/5 (Jill Tuffnell), OBJ/12 (Cambridgeshire County Council), OBJ/26 (Ramblers), OBJ/29 (Ely Group of Internal Drainage Boards), OBJ/32 (A L Lee Farming Co), OBJ/36 (Matthew Murfitt), OBJ/43 (NFU), OBJ/52 (Cambridgeshire Local Access Forum), OBJ/54 (Jane Murfitt).

There is one letter of support in support of the closure, being SUPP/2 (Andy Tyler on behalf of the Fen Line Users Association).

## Nature of the objections

$\mathrm{OBJ} / 5, \mathrm{OBJ} / 26$, OBJ52 and $\mathrm{OBJ} / 54$ relate to the loss of amenity, safety and adequacy of the alternative route. OBJ/12 (Cambridgeshire County Council) is a holding objection. The alternative route is not significantly longer than the current route. Network Rail is satisfied that its proposals are suitable and convenient for existing users. It has addressed the rationale for closing crossings elsewhere in this Statement of Case and notes that the new public rights of way must be completed to the reasonable satisfaction of the local highway authority.

OBJ/29 was concerned about the impact of the proposals on its assets and drainage. In particular, access is required to maintain a water level controller (supplying crop irrigation). Network Rail will continue to engage with this objector to allay its concerns.

OBJ/36, OBJ43 and OBJ/54 relate to the effect of the closures and diversions on farming businesses. OBJ/36 and OBJ/54 were also concerned about the adequacy
of consultation. Network Rail's consultation is described elsewhere in this Statement of Case. It complied with the legislative requirements of the 2006 Rules and took account of feedback from a variety of interested parties. OBJ/32 questions the need for the alternative route. Network Rail will continue to engage with the landowners and seek to resolve their concerns.

## C28 Black Horse Drove

## Location

This public road user worked crossing is located in Littleport Parish and has the postcode CB6 1EH. It is on the Ely to King's Lynn railway line (BGK) 79 miles 19 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 16

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 37;
in respect of powers limited to extinguishment of rights: 36;
all in the Parish of Littleport.

## Nature of level crossing

The level crossing is a user worked crossing with miniature stop lights and telephones on a public road. It also has wicket gates in the railway boundary fence. The railway at this crossing comprises 1 track, carrying passenger and freight trains, and has a line speed of up to 90 mph .

The ALCRM score for this level crossing is B4. A 9 day camera census was undertaken between 18 and 26 June 2016 with survey hours 00:00 to 24:00. 148 vehicles and 105 pedestrians were recorded using the crossing during this period. Between 2005 and 2014 there were 10 incidents of deliberate misuse and one near miss. On 19 October 2005 there was a fatality when a train struck a tractor on the level crossing. The sighting at the level crossing is insufficient for motorists. User worked crossings are no longer considered an appropriate crossing type for public roads.

## Rights affected

There are no private rights of way at the level crossing.
Black Horse Drove is a public road that runs from Ten Mile Bank to the east, crossing the railway at Black Horse Drove level crossing, to a point approximately 240 m to the west of the railway, where it becomes a private road. The road crosses through agricultural fields and alongside a number of farm and residential buildings.

## Order proposals

The Order would confer powers to extinguish all public rights at the crossing. The crossing would become a private user worked crossing for registered users, who would be granted rights. A turning head is already available on the east side of the railway.

## Land permanently affected by the proposals

There are no parcels of land affected by the proposals.

## Relevant objections

None
There is one letter of support in support of the closure, being SUPP/2 (Andy Tyler on behalf of the Fen Line Users Association).

## C29 Cassells

## Location

This crossing is located in Brinkley Parish and has the postcode CB8 OUN. It is on the Cambridge to Ipswich railway line $(\mathrm{CCH}) 8$ miles 5 chains from Cambridge.

## Where it can be found on the deposited plans

See sheet 33 .

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 01, 03, 04 and 05; and
in respect of powers limited to extinguishment of rights: 02;
in the Parish of Brinkley, and
in respect of powers limited to temporary use of land: 01, 04, 05, 06, 07 and 09; and
in respect of powers Limited to Extinguishment of Rights: 02;
in the Parish of Little Wilbraham.

## Nature of level crossing

This is a passive (footpath) level crossing with gates in the railway boundary fence. Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 1 track, carrying passenger trains, and has a line speed of up to 60 mph .

The ALCRM score for this crossing is D8. A 9 day camera census was undertaken between 18 and 26 June 2016 with survey hours 00:00 to 24:00. In total two pedestrians were recorded using the crossing during this period.

## Rights affected

There are no private rights of way at the level crossing.
The level crossing is traversed by a footpath (FP1), and is located approximately 100 m north of the Brinkley Road which links to the A1304 London Road to the west. FP1 runs through a narrow strip of woodland between Brinkley Road and Cassells level crossing. On the northern side of the level crossing, the unsurfaced FP1 runs east adjacent to the railway boundary and an unsurfaced footpath (FP10) runs
south-west to Brinkley Road, parallel to the railway, again through a narrow band of woodland and then through a gravelled area informally used as a car park.

## Order proposals

The Order would confer powers to close the level crossing to all users and extinguish existing public rights over it. A diversionary route would be provided along Brinkley Road and along the existing footpath to the north-west of the railway line. The existing footpath (approximately 100 m in length) that links Brinkley Road to the level crossing would be extinguished. The railway would be crossed at Brinkley Road level crossing which has automatic half barriers (ALCRM score of E4). The Brinkley Road section of the diversion route would incorporate a section of existing grass verge to the north of Brinkley Road crossing and a new 2 m wide asphalt planings footpath, approximately 70 m in length, within Network Rail land adjacent to Brinkley Road. In addition, a new section of 2 m wide unsurfaced footpath would be created to connect existing FP1 to Brinkley Road north of the railway, approximately 20 m in length. Crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

Parcel 4 in the Parish of Little Wilbraham would be affected by the proposals.

## Relevant objections

There have been four objections to the proposed closure of this level crossing: OBJ/5 (Jill Tuffnell), OBJ/12 (Cambridgeshire County Council), OBJ/26 (The Ramblers) and OBJ/52 (Cambridgeshire Local Access Forum).

## Nature of the objections

The objections are based on grounds of loss of amenity to users and adequacy of the alternative route. OBJ/12 and OBJ/26 are holding objections and OBJ/26 has no in-principle objection to the closure of the crossing itself. The alternative route is not significantly longer than the current route. Network Rail considers it a suitable and convenient replacement for existing users.

## C30 Westley Road

## Location

The crossing is located in Westley Waterless Parish and has postcode CB8 OUB. It is on the Cambridge to Ipswich railway line (CCH) 8 miles 74 chains from Cambridge.

## Where it can be found on the deposited plans

See sheet 32.

## Affected land

The parcels of land affected are as follows:
in respect of unrestricted powers to acquire land: 01A and 05A; and in respect of powers limited to temporary use of land: 01, 05 and 06;
in the Parish of Burrough Green, and in respect of unrestricted powers to acquire land: 01B; in respect of powers limited to temporary use of land: 01 and 03; and in respect of powers limited to extinguishment of rights: 02;
in the Parish of Westley Waterless.

## Nature of level crossing

The level crossing is a user worked crossing with miniature stop lights on a public road and a telephone (UWCM). The crossing also has wicket gates in the railway boundary fence with miniature stop lights (FPWM) The railway at this crossing comprises 1 track, carrying passenger and freight trains, and has a line speed of up to 60 mph .

The UWCM crossing has an ALCRM score of C6 and the FPWM crossing has an ALCRM score of D7. An ALCRM census in 2013 recorded 2 vehicles used the UWCM crossing, and 9 pedestrians used the FPWM crossing. In respect of the UWCM crossing, deliberate misuse was recorded once in 2010 and twice in 2016 when the gates were left open. In 2011 and 2013 near misses of vehicles crossing in front of trains were reported. In 2015, a vehicle crossed in front of the train although this was not recorded as a near miss.

A 9 day camera census was undertaken in April 2013 with survey hours 06:00 to 24:00. This showed 6 vehicular users per day, and 3 pedestrians.

## Rights affected

There are no private rights of way at the level crossing.
The level crossing is traversed by a public road. It is located approximately 650m east of A1304 London Road which it links to via a byway open to all traffic (BW1), which is an unsealed way between agricultural fields lined by trees. To the east of the level crossing is Westley. The level crossing is located approximately 1.5 km north-east of Six Mile Bottom and is in the vicinity of a number of properties that are outlying from this hamlet.

## Order proposals

The Order would confer powers to downgrade the crossing to permit vehicular passage for authorised users only, to whom private rights would be granted. The miniature stop lights and telephone would be retained at this crossing after the downgrade. Public access over the level crossing would be subject to a width restriction of 1.525 m . New bridleway gates, with mounting blocks and a turning head for vehicles would be provided in addition to the existing gates at the level crossing.

To cross the railway non-authorised vehicles would use existing highway and Brinkley Road level crossing, which has automatic half barriers (and an ALCRM score of E4).

## Land permanently affected by the proposals

The parcels of land affected by the proposals are parcels 01A, 01B and 05A.

## Relevant objections

None

## C31 Littleport Station

## Location

The level crossing is located in Littleport Parish and has postcode CB6 1JL. It is on the Ely to King's Lynn railway line (BGK) 76 miles 19 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 14.

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 17, 18, 21, 22, 24 and 25 ; and
in respect of powers limited to extinguishment of rights: 16A;
all in the Parish of Littleport.

## Nature of level crossing

Littleport Station Private Access level crossing provides the only means of access to/egress from the up platform at Littleport station. It is an ungated footpath crossing with miniature stop lights, accessed from the platform end ramps. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, and has a line speed of up to 60 mph .

The ALCRM score for the level crossing is C6. Between 2008 and 2016, 425 incidents of misuse and near misses were reported at the crossing. In the last 12 months there have been 109 incidents of misuse and near misses.

## Order proposals

To close the station private access level crossing, it is necessary to provide alternative access to the up platform. Network Rail is seeking powers to close the Lynn Road underbridge (BGK/1741) to vehicles immediately to the south of the station, to enable its use as part of a walking route between platforms. Lynn Road level crossing will be unaffected, and public rights for non-motorised users will remain.

The underbridge is regularly subject to bridge strikes, which is a safety issue and, as a minimum, causes delays to trains while the structure is inspected. Strikes have occurred on 18 August 2009, 21 June 2010, 09 March 2011, 22 November 2011, 27 February 2014, 26 August 2015 and 23 February 2016.

## Rights affected

The Order would restrict (by bollards) use of the existing carriageway beneath the underbridge to non-motorised users only via a new raised footway (approximately 30 m in length). Users of the station private access level crossing would be diverted to use this underbridge. Crossing infrastructure would be removed and platform-end fencing installed to prevent trespass onto the railway. A new access to the up platform will be created on Network Rail land to the east of the railway.

## Land permanently affected by the proposals

No parcels of land are affected by the proposals.

## Relevant objections

None
There is one letter of support in support of the closure, being SUPP/2 (Andy Tyler on behalf of the Fen Line Users Association).

## Railway Enhancement Projects

Closure of the station private access level crossing is required to enable platform extensions to accommodate new 8-car trains.

## C33 Jack O'Tell

## Location

This vehicular crossing is located in Waterbeach Parish and has postcode CB25 9LR. It is on the Liverpool Street to Ely railway line (BGK) 64 miles 35 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheets 28 and 29.

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: $02,03,04,05,06,07$, $09,10,11,12,13,14,15,16,17,21,23,25,26,27$ and 28 ;
in respect of powers limited to rights: $01,08,20,22$, and 24 ; and
in respect of powers limited to extinguishment of rights: 18 and 19
all in the Parish of Waterbeach.

## Nature of level crossing

This is a passive user worked crossing (UWC). Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, and has a line speed of up to 90 mph . A public footpath also crosses the railway at this location. There is no separate provision for pedestrians; they must use the vehicular gates.

The ALCRM score for this level crossing is A2. An ALCRM census in May 2016 recorded 2 vehicles and 12 pedestrians used the crossing. A questionnaire completed by the authorized user in December 2016 stated daily usage comprised 3 pedestrian traverses and 11 vehicles.

Between 2011 and 2015 there were 2 near misses at the crossing, including one involving a tractor on 11 September 2014.

## Rights affected

There are currently private vehicular rights over the crossing, providing access to farmland on both sides of the railway.

There is also a public footpath route across the railway (FP16 - which is not affected by the Order), which links Chittering Drove (approximately 650m west of the level crossing) and Long Drove (approximately 900m east of the level crossing).

## Order proposals

The Order would confer powers to extinguish the existing private vehicle rights over the level crossing. The public footpath crossing for pedestrians would not be affected, but wicket gates would be provided on either side of the railway. In order to cross the railway by vehicular means a combination of private farm tracks and adopted highway would be used to divert vehicles to Bannolds level crossing (ALCRM score D5) to the south, which has automatic half barriers, or the A1123 to the north.

## Land permanently affected by the proposals

The parcels of land affected by the proposals are: 2, 4, 9, 11 and 16 .

## Relevant objections

There have been ten objections to the proposed closure of this level crossing: OBJ/12 (Cambridgeshire County Council), OBJ/15 (Jonathan Stiff on behalf of F C Palmer \& Sons), OBJ/33 (Simon Clewlow on behalf of numerous parties including Aquila Investments Limited and RLW Estates Limited), OBJ/38 (Lucy Fraser QC MP on behalf of Mr L Palmer t/a F C Palmer \& Sons), OBJ/39 (lan Palmer on behalf of F C Palmer \& Sons), OBJ/40 (David Palmer on behalf of F C Palmer \& Sons), OBJ/41 (Adam Palmer on behalf of F C Palmer \& Sons), OBJ/42 (Kier Petherick on behalf of F C Palmer \& Sons), OBJ/43 (NFU), OBJ/51 (Luke Palmer on behalf of F C Palmer \& Sons).

There is one letter of support in support of the closure, being SUPP/2 (Andy Tyler on behalf of the Fen Line Users Association).

## Nature of the objections

8 of the objections $\mathrm{OBJ} / 15, \mathrm{OBJ} / 38$, $\mathrm{OBJ} / 39$, $\mathrm{OBJ} / 40, \mathrm{OBJ} / 41$, $\mathrm{OBJ} / 42, \mathrm{OBJ} / 43$ and OBJ/51 relate to the impact of the proposals on the farming business of FC Palmer and Sons. Whilst recognizing the benefits of the Order proposals, OBJ/33 relates to the impact of the proposals on another agricultural business. The NFU has objected to the closure of a number of crossings on the grounds of potential impact on agricultural businesses. Network Rail will continue to engage with the NFU as well as the stakeholders concerned to see how the issues they raise may be addressed.

OBJ/12 is concerned with loss of amenity to users and impact on local highway network. The alternative route is not significantly longer than the current route and Network Rail is satisfied that it is a convenient and suitable replacement for existing users.

## C34 Fysons

## Location

This vehicular crossing is located in Waterbeach Parish and has postcode CB25 9LR. It is on the Liverpool Street to Ely railway line (BGK) 63 miles 66 chains from Liverpool Street.

## Where it can be found on the deposited plans

See sheet 30 .

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land: 30 and 31 ;
in respect of powers limited to rights: 32,33 and 34 ; and
in respect of powers limited to extinguishment of rights: 29
all in the Parish of Waterbeach.

## Nature of level crossing

This is a passive private user worked crossing (UWC). Users are instructed to stop, look and listen: beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, and has a line speed of up to 90 mph .

The ALCRM score for this crossing is A6. A questionnaire completed by the authorized user in December 2016 stated daily usage comprised 2 pedestrian traverses and 9 vehicles.

The crossing provides access to farmland on both sides of the railway via unpaved farm tracks which run across the agricultural land and link to Long Drove approximately 500 m to the east of the level crossing.

## Rights affected

There are existing private vehicular rights over this crossing.
There are no existing public rights of way over this crossing.

## Order proposals

The Order would confer powers to close the crossing to all users and extinguish existing private rights over the level crossing. In order to cross the railway a combination of private farm tracks and adopted highway would be used to divert to Bannolds level crossing, which has automatic half barriers (and an ALCRM score of D5). Crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

No parcels of land are permanently affected by the proposals.

## Relevant objections

There have been ten objections to the proposed closure of this level crossing: OBJ/12 (Cambridgeshire County Council), OBJ/15 (Jonathan Stiff on behalf of F C Palmer \& Sons), OBJ/33 (Simon Clewlow on behalf of numerous parties including Aquila Investments Limited and RLW Estates Limited), OBJ/38 (Lucy Fraser QC MP on behalf of Mr L Palmer t/a F C Palmer \& Sons), OBJ/39 (lan Palmer on behalf of F C Palmer \& Sons), OBJ/40 (David Palmer on behalf of F C Palmer \& Sons), OBJ/41 (Adam Palmer on behalf of F C Palmer \& Sons), OBJ/42 (Kier Petherick on behalf of F C Palmer \& Sons), OBJ/43 (NFU), OBJ/51 (Luke Palmer on behalf of F C Palmer \& Sons).

There is one letter of support in support of the closure, being SUPP/2 (Andy Tyler on behalf of the Fen Line Users Association).

## Nature of the objections

8 of the objections $\mathrm{OBJ} / 15, \mathrm{OBJ} / 38, \mathrm{OBJ} / 39, \mathrm{OBJ} / 40, \mathrm{OBJ} / 41, \mathrm{OBJ} / 42, \mathrm{OBJ} / 43$ and OBJ/51 relate to the impact of the proposals on the farming business of FC Palmer and Sons. Whilst recognising the benefits of the Order proposals, OBJ/33 relates to the impact of the proposals on another agricultural business. The NFU has objected to the closure of a number of crossings on the grounds of potential impact on agricultural businesses. OBJ/12 is concerned with the impact on the local highway network. Network Rail will continue to engage with the NFU as well as the stakeholders concerned to see how the issues they raise may be addressed.

## C35 Ballast Pit

## Location

This private vehicular crossing is located in Waterbeach Parish and has postcode CB25 9LW. It is on the Liverpool Street to Ely railway line (BGK) 62 miles 32 chains from Liverpool Street.

## Where it can be found on the deposited plans

It is shown on sheet 31 .

## Affected land

The parcels of land affected are as follows:
in respect of powers limited to temporary use of land and acquisition of rights: $37,38,39,40,45$ and 47;
in respect of powers limited to temporary use of land: 36 and 37A; and
in respect of powers limited to extinguishment of rights: 43
all in the Parish of Waterbeach.

## Nature of level crossing

This is a passive private user worked crossing. Users are instructed to stop, look and listen; beware of trains, and must make their own decision whether it is safe to cross. The railway at this crossing comprises 2 tracks, carrying passenger and freight trains, and has a line speed of up to 75 mph .

The ALCRM score for this level crossing is A6. Questionnaires completed by the authorized users in December 2016 stated pedestrian traverses 10 times per month, twice monthly traverses with a tractor, and ten times yearly vehicular usage.

A near miss with a trailer was reported on 27 August 2010.

## Rights affected

The crossing provides private access to a fishing lake on the west side of the railway. The track runs across agricultural land and links to Long Drove approximately 120 m to the east of the level crossing.

There are no public rights of way at this crossing.

## Order proposals

The Order would confer powers to close the crossing to all users and extinguish existing private rights over the level crossing. In order to cross the railway a combination of private farm tracks and adopted highway would be used to divert to Bannolds level crossing, which has automatic half barriers (and an ALCRM score of D5). The existing track to the west of Ballast Pit (approximately 290 m in length) would become a private road with a culvert over the watercourse, to connect into a byway open to all traffic (BW14). Crossing infrastructure would be removed and fencing installed to prevent trespass onto the railway.

## Land permanently affected by the proposals

Parcels $37,38,39$ and 40 would be affected by the proposals.

## Relevant objections

There have been two objections to the proposed closure of this level crossing: OBJ/12 (Cambridgeshire County Council) and OBJ/33 (Simon Clewlow on behalf of numerous parties including Aquila Investments Limited and RLW Estates Limited).

There is one letter of support in support of the closure, being SUPP/2 (Andy Tyler on behalf of the Fen Line Users Association).

## Nature of the objections

$\mathrm{OBJ} / 12$ is concerned about increase in liability on local highway network, and diminution of enjoyment for non-motorised users. Whilst OBJ/33 supports the aims of the Order and recognises the benefits it is concerned about impacts on its farming business.

Network Rail considers that its proposals are a suitable and convenient replacement for existing users. It will continue to engage with relevant stakeholders in relation to the impacts of its proposals at this location.

## Conclusion

178. Network Rail recognises that the Cambridgeshire Level Crossing Reduction proposals will have an impact on adjacent properties, local communities and those that use the level crossings affected by them.
179. It is Network Rail's considered view that its proposals are sensitive to the needs of the various stakeholders concerned and that, where alternative routes are provided, they are suitably accessible, safe, and convenient.
180. Network Rail has taken on board comments from third party landowners and, as the proposals have developed, diversionary routes have been amended to reduce impacts on interested parties.
181. Network Rail considers that the any adverse impacts found to exist from the closures are demonstrably outweighed by the substantial public and railway benefits that the Scheme will bring.

## Appendix A: List of Core Documents

## NR01 Application

NR02 Draft Network Rail (Cambridgeshire Level Crossing Reduction) Order
NR03 Explanatory Memorandum
NR04 Statement of Aims
NR05 Statement of Consultation
NR06 Funding Statement
NR07 Estimate of Costs
NR08 Order plans and sections
NR09 Book of Reference
NR10 Planning Statement, which provides a description of the scope and purpose of the Application in relation to relevant legislative requirements, and planning policy

NR11 Screening Decision Letter, which confirms that under the EIA Regulations the scheme has been deemed as having no significant impact on the environment and therefore does not require an Environmental Statement

NR12 Design Guide which outlines the design proposal principles and components, including drawings for each level crossing

NR13 Management of Health and Safety at Work Regulations 1999 (tab 1)
NR14 ORR: Strategy for regulation of health and safety risks - 4: Level crossings (tab 2)

NR15 ORR: Periodic Review 2013: Final determination of Network Rail's output funding for 2014-19. Extracts relevant to level crossings-the entire document is available at http://www.orr.gov.uk/rail/economic-regulation/regulation-of-network-rail/price-controls/periodic-review-2013/pr13-publications/final-determination (tab 3)

NR16 Road Safety Audits for Cambridgeshire (tab 4)
NR17 Transforming Level Crossings 2015-2040 (tab 5)
NR18 Client Requirements Document Anglia CP5 Level Crossing Reduction Strategy (tab 6)

NR19 CP5 Level Crossing Risk Reduction Fund Criteria, Governance and Reporting (tab 7)

NR20 Network Rail Standard NR/L1/XNG/100: Level crossing asset management policy (tab 8)

NR21 Network Rail Standard NR/L2/SIG/19608: Level crossing asset inspection and implementation of minimum actions codes (tab 9)

NR22 Network Rail Operations Manual NR_L3_OCS_041_5-16: Risk Assessing Level Crossings (tab 10)

NR23 Network Rail Level Crossing Guidance 01: Completion of Site Visit and Census Forms (tab 11)

NR24 Anglia Route Study (March 2016) (tab 12)
NR25 Censuses of Cambridgeshire sites (tab 13)
NR26 Network Rail Statement of Case (this document)

## Appendix B: Locations where Core Documents may be Inspected Prior to the Public Inquiry

In accordance with Rule 7 of the Transport and Works (Inquiries Procedures) Rules 2004, a copy of every document or the relevant part of any document which Network Rail intends to refer to or put in evidence, together with a copy of every Statement of Case served by every other party and of every document served with them (once received and copied by Network Rail) may be inspected free of charge and, where practicable and subject to the payment of a reasonable charge, copied, at the following locations at the following times:

| Location | Times |  |
| :--- | :--- | :--- |
|  |  | Mondays |
| Great Shelford Library | 3pm-7pm |  |
| 10-12 Woollards Lane | Tuesdays | 10am-1pm and 2pm-5pm |
| Great Shelford | Wednesdays | 10am-1pm |
| CB22 5LZ | Thursdays | Closed |
|  | Fridays | 10am-1pm and 2pm-6pm |
|  | Saturdays | 10am-1pm |
| Sundays | Closed |  |


| Location | Times |  |
| :---: | :---: | :---: |
| Ely Library <br> 6 The Cloisters <br> Ely <br> CB7 4ZH | Mondays <br> Tuesdays <br> Wednesdays <br> Thursdays <br> Fridays <br> Saturdays <br> Sundays | 9.30am-1pm <br> $9.30 \mathrm{am}-5 \mathrm{pm}$ <br> 9.30am-5pm <br> $9.30 \mathrm{am}-7 \mathrm{pm}$ <br> $9.30 \mathrm{am}-5 \mathrm{pm}$ <br> 9.30am-4pm <br> Closed |
| Soham Library 7 Clay Street Soham CB7 5HJ | Mondays <br> Tuesdays <br> Wednesdays <br> Thursdays <br> Fridays <br> Saturdays <br> Sundays | 9am-5pm <br> 9am-1pm <br> Closed <br> 9am-5pm <br> 2pm-5pm <br> 9am-1pm <br> Closed |
| March Library <br> City Road <br> March <br> PE15 9LT | Mondays <br> Tuesdays <br> Wednesdays <br> Thursdays <br> Fridays <br> Saturdays <br> Sundays | 9.30am-5pm <br> $9.30 \mathrm{am}-5 \mathrm{pm}$ <br> 9.30am-1pm <br> $9.30 \mathrm{am}-7 \mathrm{pm}$ <br> $9.30 \mathrm{am}-5 \mathrm{pm}$ <br> 9.30am-4pm <br> Closed |
| Whittlesey Library Learning Centre 31-35 Market Street <br> Whittlesey <br> PE7 1BA | Mondays <br> Tuesdays <br> Wednesdays <br> Thursdays <br> Fridays <br> Saturdays <br> Sundays | 9am-5pm <br> 9am-1pm <br> 9am-12noon <br> Closed <br> 9am-5pm <br> $9 \mathrm{am}-1 \mathrm{pm}$ <br> Closed |
| Melbourn Library Access Point <br> High Street <br> Melbourn <br> SG8 6DZ | Mondays <br> Tuesdays <br> Wednesdays <br> Thursdays <br> Fridays <br> Saturdays <br> Sundays | 2.30pm - 4.30pm <br> 2.30pm - 4.30pm <br> 2.30pm - 4.30pm <br> 2.30pm - 6.30 pm <br> 2.30pm - 4.30pm <br> 10am-12am <br> Closed |
| Bottisham Library Access Point Bottisham Village College <br> Lode Road <br> Bottisham <br> CB25 9DL | Mondays <br> Tuesdays <br> Wednesdays <br> Thursdays <br> Fridays <br> Saturdays <br> Sundays | $\begin{aligned} & \text { Closed } \\ & 3 \mathrm{pm}-5 \mathrm{pm} \text { and } 6 \mathrm{pm}-8 \mathrm{pm} \\ & 10 \mathrm{am}-11 \mathrm{am} \\ & 3 \mathrm{pm}-5 \mathrm{pm} \\ & 6 \mathrm{pm}-8 \mathrm{pm} \\ & 10 \mathrm{am}-12 \mathrm{pm} \\ & \text { Closed } \end{aligned}$ |
| East Cambridgeshire District Council Planning Administration Team <br> East Cambridgeshire District Council <br> The Grange <br> Nutholt Lane <br> Ely <br> CB7 4PL | Mondays <br> Tuesdays <br> Wednesdays <br> Thursdays <br> Fridays <br> Saturdays <br> Sundays | 8.45 am - 5 pm <br> 8.45am - 5 pm <br> $8.45 a m-5 p m$ <br> 8.45am -5pm <br> 8.45am-4.30pm <br> Closed <br> Closed |


| Location | Times |  |
| :---: | :---: | :---: |
| South Cambridgeshire District Council Democratic Services Officer South Cambridgeshire District Council South Cambridgeshire Hall Cambourne Business Park Cambourne CB23 6EA | Mondays <br> Tuesdays <br> Wednesdays <br> Thursdays <br> Fridays <br> Saturdays <br> Sundays | 8am-5.30pm <br> 8am-5.30pm <br> 8am-5.30pm <br> 8am-5.30pm <br> 8am-5.30pm <br> Closed <br> Closed |
| Fenland District Council Head of Legal Services Fenland District Council Fenland Hall County Road March PE15 8NQ | Mondays <br> Tuesdays <br> Wednesdays <br> Thursdays <br> Fridays <br> Saturdays <br> Sundays | $9 \mathrm{am}-5 \mathrm{pm}$ <br> 9am-5pm <br> $9 \mathrm{am}-5 \mathrm{pm}$ <br> $9 \mathrm{am}-5 \mathrm{pm}$ <br> $9 \mathrm{am}-4.45 \mathrm{pm}$ <br> Closed <br> Closed |
| Cambridgeshire County Council Mrs Camilla Rhodes <br> Asset Manager - Information <br> Highways Service (Box. SH1313) <br> Shire Hall <br> Castle Street <br> Cambridge <br> CB3 OAP | Mondays <br> Tuesdays <br> Wednesdays <br> Thursdays <br> Fridays <br> Saturdays <br> Sundays | $9 \mathrm{am}-5 \mathrm{pm}$ <br> $9 a m-5 p m$ <br> 9 am -5pm <br> $9 \mathrm{am}-5 \mathrm{pm}$ <br> 9am-4.30pm <br> Closed <br> Closed |

Copies of all documents are also available to view and download at http://www.networkrail.co.uk/anglialevelcrossings/.

## Appendix C: Level Crossing Equipment

## Gates

183. Gates at level crossings may be for pedestrians, equestrians, or vehicles. They should be spring-loaded, gravity closed or may have catches to keep them closed. Some gates are operated by crossing keepers and are designed to fence the railway when open to road vehicles, but the majority of gates open away from the railway.

## Stiles

184. Stiles are commonly used at footpath level crossings to enable a user to cross the fence that marks the railway boundary. Kissing gates may also be provided.

## Decks

185. Decks are usually provided at crossings. They should feature a non-slip surface, although some are older timber types. Some are marked with blue edge lights to aid users during darkness.

## Signage

186. Signage depends on the crossing type, whether a public road, footpath, private right of way etc. The minimum signage at a footpath level crossing is a white sign with a red edge stating "Stop Look Listen, Beware of Trains". Signs instruct the safe method of use, warn against trespassing on the railway and the specific dangers from electrification, or advise that a level crossing does not carry public rights. Signage to deter suicide is also commonly displayed.

## Whistle boards

187. Where there is insufficient sighting of approaching trains due to curvature of the line or a lineside structure for example, whistle boards are often provided. These are only effective at distances up to 400 m from the crossing they are protecting.
188. There are sometimes complaints about train horn noise from neighbours. Network Rail considers that it is within its statutory powers to operate the railway with whistle boards, but our long-term strategy is to remove them, replacing them with novel warning systems.
189. The effectiveness of this form of protection is limited if the user of a crossing is wearing headphones and/or suffering from hearing loss. The sound is also susceptible to background noise, or being obscured by the noise of another passing train.
190. As the horn is manually operated by the train driver, there is always the possibility that, on occasion, a train may not sound its horn when necessary.
191. In 2007, as a result of significant neighbour and political concern after newer trains were fitted with louder horns, a Night Time Quiet Period (NTQP) was introduced. During this period, 2300-0700, trains did not sound their horn on approach to whistle-board protected crossings. In the same change, train drivers were instructed only to use the low tone horn rather than the traditional two tones. In 2016, the NTQP was reduced to enable greater protection for users. It now applies between 2359 and 0600. Whilst noise impact on neighbours is reduced by the NTQP, it of course leaves these level crossings with less warning of approaching trains early in the morning and late at night, both times at which people may, for example, be going running or taking their dogs for a walk. Public rights of way are open 24 hours a day.

## Supplementary Audible Warning System (SAWD)

192. Whistle board crossings may be enhanced by the Covtec SAWD system. This is a radar-activated device that sounds a horn located at the level crossing. The horn's proximity to the user means the volume can be lower, reducing the impact on surrounding residents. However, the device does not have an established Safety Integrity Level so although a useful device to help a user decide whether it is safe to cross, Covtec can only be used to supplement whistle boards rather than replace them.

## Telephones

193. These are provided to allow communication between users of level crossings and the signaller. They are found in the following situations:
193.1. User-worked vehicular crossings where the crossing time greater than the sighting time, where there are long or slow-moving vehicles, where animal are herded over the crossing or where there is a risk of grounding.
193.2. Public bridleway (and rarely footpath) crossings where the sighting time is inadequate.
193.3. Public road half barrier or full barrier crossings for the use of drivers of large or slow vehicles, or in emergency.
194. The use of telephones can create a workload and ergonomics issue for signallers at busy times. If a signaller is unable to answer a call owing to other demands on their time, this may lead to user frustration, and possibly crossing misuse.
195. On some lines, the signaller does not know exactly where a train is located. ${ }^{25}$ This can lead to a signaller requesting users wait a significant length of time, as the only information they can give is that it will be safe once the train has passed.
196. If a signaller requests users to call back after crossing, and they fail to do so or cannot get through, this will be recorded as deliberate misuse and trains will be cautioned before they are allowed to proceed at line speed across the crossing in question.
197. Signallers have, on occasion, mistakenly given users permission to cross in front of a train. For this reason, it is important to consider the overall operational risk created by installing telephones, not just the local benefits at a particular crossing.

## Miniature Stop Lights (MSLs)

198. These lights display a green light when it is safe to cross the railway and a red light when it is not. There may also be an audible warning.
199. They may be installed at level crossings where sighting is insufficient, or as a measure to reduce the risk at crossings with sufficient sighting. They can also be installed to reduce the number of telephone calls to signalboxes.
200. The lights are triggered by approaching trains, and are linked to the signalling system. They are therefore an expensive item to install and maintain.
201. The warning time can be adjusted depending on the likely usage of the crossing. Too short a warning time could lead to a collision; too long a time could drive poor user behaviour.
202. There have been several fatalities at MSL-protected crossings in Anglia route. These include Elsenham, Black Horse Drove, Johnson's, Cannon's Mill Lane, and Motts Lane.

## Overlay MSLs

203. This is a cheaper system of MSLs that is not integrated with the signalling system. Two models are used on the mainline (Ebigate200 and VaMoS). The system may be 'always on' or activated by the user pressing a button, e.g. where the power supply is from a local renewable source. A telephone will be provided should the system not display any lights.
[^16]
## Spoken Warnings

204. At some level crossings, a movement-activated spoken warning device has been installed to raise awareness of safety issues at level crossings.
205. Spoken warnings may also be added to AHB crossings. For example, Waterbeach level crossing has a spoken warning announcing that a second train is approaching.

# Appendix D: Level Crossing Renewal and Enhancement Costs 

## Network Rail CP6 cost model (extract):

| Work Type | Description of work | Cost |
| :---: | :---: | :---: |
| Additional protection for user operated crossing | Safety upgrade by addition of dependable audible train approaching system for user operated crossing | £ 40,000.00 |
| Convert FP(any) to FP(any)-MSL | New MSL system for existing FP of any type for non-motorised use, inc. train detection and new interface in control centre | £ 452,000.00 |
| Convert FP(any) to FP(any)-OMSL | New OMSL system for existing FP of any type for non-motorised use, inc. train detection and new interface in control centre | £ 300,000.00 |
| Convert MCB to ABCL+ | Convert MCB-any to ABCL+ by replacing protecting signals with DCIs and adding extra protection equipment TBD inc. barrier skirts, red standing men, barrier protection etc. as required mainly intended for MCB-TCOs | £ 355,000.00 |
| Convert MCB to MCBCCTV | New CCTV system for existing MCB inc. new interface in control centre | £ 356,000.00 |
| Convert MCB to MCBOD | New OD system for existing MCB inc. new interface in control centre | £ 320,000.00 |
| Convert MCB-CCTV to MCB-OD | New OD system for existing MCB-CCTV, recover CCTV system inc. new interface in control centre | £ 420,000.00 |
| Convert user operated crossing to $\operatorname{xxx}(\mathrm{T})$ | New telephone system for existing FP or UWC inc. new interface in control centre | £ 100,000.00 |
| Convert UWC to UWC(P) | New power operated gates system for any existing UWC | £ 150,700.00 |
| Convert UWC(any) to UWC(any)-MSL | New MSL system for existing UWC of any type for vehicle use, inc. train detection and new interface in control centre | £ 452,000.00 |
| Convert UWC(any) to UWC(any)-OMSL | New OMSL system for existing UWC of any type for vehicle use, inc. train detection and new interface in control centre | £ 300,000.00 |
| Supplementary protection for user operated crossing | Safety upgrade by addition of supplementary audible train approaching system for user operated crossing E.G. Covtec | £ 30,000.00 |
| Recontrol crossing telephones | New interface in control centre for telephones for crossing. Use when crossing with only telephones is recontrolled or new interface in control centre | £ 27,544.00 |
| Automatic Half Barrier | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, equipment protection barriers as required, cattle-cumtrespass guards, signs, barriers, barrier control system, barrier machines, road traffic lights, road markings, road surface between 'stop' lines, along with alarm transmission and terminal equipment at control centre | £ 1,433,705.07 |
| Automatic Half Barrier with additional protection | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, equipment protection barriers as required, cattle-cumtrespass guards, signs, barriers, barrier control system, barrier machines, road traffic lights, road markings, road surface between 'stop' lines, along with alarm transmission and terminal equipment at control centre, plus additional protection equipment TBD inc. barrier skirts, red standing men, active signs, etc. | £ 1,623,900.00 |
| Automatic Open Crossing (Locally) Monitored | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, equipment protection barriers as required, cattle-cumtrespass guards, signs, control system, road traffic lights, road markings, road surface between 'stop' lines. | £ 1,337,000.00 |


| Work Type | Description of work | Cost |
| :---: | :---: | :---: |
| Footpath or Bridleway | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, cattle-cum-trespass guards, signs, gates and gate posts inc. latching mechanism, lights, road markings, crossing surface between railway boundaries, 'stop' lines | £ 89,100.00 |
| Bridleway with Telephone | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, cattle-cum-trespass guards, signs, gates and gate posts inc. latching mechanism, lights, road markings, crossing surface between railway boundaries, 'stop' lines, telephone | £ 220,000.00 |
| Footpath or Bridleway with Miniature Stop Lights | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, cattle-cum-trespass guards, signs, gates and gate posts inc. latching mechanism, lights, surface markings, approach surfaces between railway boundaries along with user warning lights, signs and train detection equipment | £ 786,924.46 |
| Footpath or Bridleway with Overlay Miniature Stop Lights | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, cattle-cum-trespass guards, signs, gates and gate posts inc. latching mechanism, lights, surface markings, approach surfaces between railway boundaries along with user warning lights, signs and train detection equipment | £ 500,000.00 |
| Manually Controlled Barrier with CCTV | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, equipment protection barriers as required, cattle-cumtrespass guards, signs, barriers, barrier control system, barrier skirts, barrier machines, road traffic lights, road markings, road surface between 'stop' lines, along with CCTV cameras, camera column, floodlights, CCTV transmission, CCTV monitor and control equipment, [protecting signals excluded] | £ 1,843,047.07 |
| Controlled Barrier with Obstacle Detection | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, equipment protection barriers as required, cattle-cumtrespass guards, signs, barriers, barrier control system, barrier skirts, barrier machines, road traffic lights, road markings, road surface between 'stop' lines, along with obstacle detection RADAR/LIDAR equipment and associated control equipment. [protecting signals excluded] | £ 2,008,985.74 |
| Manually Controlled Barrier | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, equipment protection barriers as required, cattle-cumtrespass guards, signs, barriers, barrier control system, barrier skirts, barrier machines, road traffic lights, road markings, road surface between 'stop' lines. [protecting signals excluded] | £ 1,294,922.09 |
| User Worked Crossing (UWC) | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, cattle-cum-trespass guards, signs, gates and gate posts inc. latching mechanism, lights, road markings, road surface between 'stop' lines | £ 166,100.00 |
| User Worked Crossing with telephone (UWCT) | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, cattle-cum-trespass guards, signs, gates and gate posts inc. latching mechanism, lights, road markings, road surface between 'stop' lines, telephone | £ 370,000.00 |
| User Worked Crossing with Miniature Stop Lights (UWCM) | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, cattle-cum-trespass guards, signs, gates and gate posts inc. latching mechanism, lights, road markings, road surface between 'stop' lines along with user warning lights, signs and train detection equipment | £ 786,924.46 |
| User Worked Crossing with Overlay Miniature Stop Lights | Renewal of all parts of the crossing including deck, fencing 10 metres each corner of crossing, cattle-cum-trespass guards, signs, gates and gate posts inc. latching mechanism, lights, surface markings, approach surfaces between railway boundaries along with user warning lights, signs and train detection equipment | £ 650,000.00 |
| External renewal for AHB | Renew barriers, barrier machines, road traffic lights | £ 1,340,000.00 |
| External renewal for AHB+ | Renew barriers, barrier machines, road traffic lights, plus existing additional protection equipment e.g. barrier skirts, red standing men, etc. | £ 1,503,900.00 |
| External CCTV renewal for MCB- | Renew CCTV cameras, camera column, floodlights, CCTV transmission | £ 332,200.00 |


| Work Type | Description of work | Cost |  |
| :---: | :---: | :---: | :---: |
| CCTV |  |  |  |
| External renewal for FP(any) | Renew gates + fencing 10 metres each corner of crossing \& between railway boundaries inc. style replacement |  | 20,625.00 |
| External renewal for FP(L) | Renew locking gates + fencing 10 metres each corner of crossing \& between railway boundaries, exc. any MSL equipment |  | 108,000.00 |
| External renewal for MCB-any exc CCTVIOD equipment | Renew barriers, barrier skirts, barrier machines, road traffic lights |  | 209,000.00 |
| External renewal for (any)-MSL | Renew MSL external equipment only (otherwise use SU-any+MSL WT for full MSL system renewal) | £ | 49,500.00 |
| External renewal for (any)-OMSL | Renew OMSL external equipment only (otherwise use +OMSL WT for full OMSL system renewal) | £ | 375,000.00 |
| External renewal for UWC(x/T) exc MSL | Renew gates + fencing 10 metres each corner of crossing \& between railway boundaries. Can be used where MSL is present, but excludes MSL equipment (Use X-MSL) | £ | 192,500.00 |
| External renewal for UWC(P) exc MSL | Renew power operated gates/barrier system (non-interlocked) + fencing 10 metres each corner of crossing \& between railway boundaries. Can be used where MSL is present. |  | 242,500.00 |
| Non-motorised approach surfaces for FP(any) | New approach surfaces for non-motorised traffic e.g. steps/ramps on both sides of crossing, inc. high grip surface, flangeway filler if required | £ | 10,000.00 |
| Vehicle approach surfaces for UWC(any) | New approach surfaces for vehicles e.g. hard standing 'take-off and landing' areas at User Worked Vehicle Crossings inc. high grip surface, flangeway filler if required, enabling works - excavations/filling to alter crossing profile |  | 75,000.00 |
| Equipment protection crash barriers | New vehicle protection barriers to protect equipment where risk identified | £ | 7,000.00 |
| Deck, Approaches and Lineside - renew fixed assets | Renew all passive assets at crossing inc. fencing 10 metres each corner of crossing \& between railway boundaries, equipment protection barriers as required, decking, approach surfaces, signage, furniture, access gates; clear vegetation [needs different sizes OR remove deck] | £ | 62,500.00 |
| Deck - large | New deck for large vehicular crossing (e.g. skew crossing) | £ | 151,800.00 |
| Deck - medium | New deck for medium vehicular crossing (e.g. typical crossing) | £ | 115,500.00 |
| Deck - small | New deck for small vehicular crossing (e.g. UWC / minor road) | £ | 58,300.00 |
| Deck - non motorised traffic | New deck for foot or bridleway crossing | £ | 37,400.00 |
| Fencing | Renew fencing 10 metres each corner of crossing; MW | £ | 5,000.00 |
| Additional signals associated with manually controlled crossings | $4 x$ signals to protect a manually controlled crossing, as add on to any MCBcrossing if required | £ | 710,000.00 |
| Video recording equipment fitment | Standalone video system for recording/reviewing near misses | £ | 185,900.00 |

OMSL (Overlay Miniature Stop Lights) is Vamos or Ebigate.
Note that technological developments may lead to some of the costs above reducing in future.

## Appendix E: Maintenance Costs

'Real world' maintenance costs from the Route Level Crossing Manager (Great Eastern):

- A footpath deck costs approx. $£ 3000$ to renew, a bridleway deck approx. $£ 6000$, and a road crossing deck approx. £10,000.
- We have estimated the cost to remove and reinstate a crossing (e.g. to allow tamping) to be around $£ 5000$ on average, including Traffic Regulation Order costs.
- Gates/stiles: $£ 2000$ per 5 years to maintain/renew.
- Risk assessments: time taken to visit, inspect and risk assess each crossing: around $£ 1000$ per year.


## Appendix F: Design Guide Drawings

Extracts from the Design Guide (document NR12) follow this page. (Note that the following pages do not continue the page numbering.)
































[^0]:    ${ }^{1}$ The decision point is usually defined as 2 m from the nearest running rail. However, at bridleway and vehicular crossings, it is defined as 3 m .

[^1]:    ${ }^{2}$ 'Passive', means that there is no direct method of warning people using the level crossing of approaching trains and it is not controlled, equipped with lights, audible warnings or barriers interlocked with signals.

[^2]:    ${ }^{3}$ Following a coroner's verdict, a fourth fatality which was originally believed to be a suicide was identified at Cannon's Mill Lane level crossing in Bishop's Stortford in 2015/2016. This is reflected in the figures above.

[^3]:    ${ }^{4}$ Source: RSSB Annual Safety Performance Report 2015/16.

[^4]:    ${ }^{5}$ Renewing all elements of the level crossing.
    ${ }^{6}$ Many elements of level crossings need not be scrapped, but can be redeployed at other crossings.
    ${ }^{7}$ Note that changes to level crossings on roads to which the public have access may require the involvement of the ORR and the amendment of Level Crossing Orders.

[^5]:    ${ }^{8}$ The Night Time Quiet Period (NTQP) between the hours of 23:59 and 06:00 has further meant that some level crossings do not provide appropriate warning of approaching trains between these hours.
    ${ }^{9}$ The use of personal audio equipment can also lead to people making themselves deaf to the outside world.

[^6]:    ${ }^{10}$ Track circuits are a way of detecting the presence of a train. When a train is 'in section', it completes an electrical circuit between the rails, which allows a current to flow between them.
    ${ }^{11}$ In some locations, it is possible to isolate track circuits at level crossings, so that salt water will not complete a circuit. Corrosion remains an issue.

[^7]:    ${ }^{12}$ i.e. told to proceed at reduced speed.

[^8]:    ${ }^{13}$ Based on Higham level crossing in Suffolk.

[^9]:    ${ }^{15}$ Network Rail receives funding from the Government in 5 year Control Periods. CP4 commenced in April 2009 and ended in March 2014. CP5 started in April 2014 and finishes in March 2019.
    ${ }^{16}$ An incident where a farmer became grounded across the railway at Nairns level crossing in Scotland in the early 1990s revealed a nationwide issue with the profiles of crossings. This necessitated heavy investment by British Rail to reprofile crossings and/or install telephones to mitigate against the risk of grounding. In view of the cost of remedial works, funding was made available to close private level crossings by negotiation. This explains the spike in the number of closures and downgrades achieved.

[^10]:    ${ }^{17}$ 01/04/2014-31/03/2019
    ${ }^{18}$ May 2017

[^11]:    ${ }^{19}$ In the past, requests to highway authorities for them to use the compulsory powers vested in them to create diversionary public rights of way have been unsuccessful, even where Network Rail has undertaken to cover the costs.

[^12]:    ${ }^{20}$ Although in the case of public rights of way closed by Rail Crossing Orders, the Transport and Works Act grants repeal of any specific legislation requiring a level crossing to be maintained (s. 47(2)).

[^13]:    ${ }^{21}$ Network Rail intends to revisit these proposals when future funding or network development permits.

[^14]:    ${ }^{22} 3$ venues were chosen for the Cambridgeshire level crossings: March, Cambridge, and Littleport

[^15]:    ${ }^{23}$ The same 3 towns were chosen in Cambridgeshire.
    ${ }^{24}$ Feedback was received about the Lower Thames Crossing consultation, which was not undertaken in Thurrock, to the locals' understandable concern.

[^16]:    ${ }^{25}$ For example, the Marks Tey to Sudbury branch operates a 'one train on line' policy; there are no track circuits to show the signaller the train's progress.

