

**TRANSPORT AND WORKS ACT 1992**

**TRANSPORT AND WORKS (INQUIRIES  
PROCEDURE) RULES 2004**

**THE NETWORK RAIL  
(ESSEX AND OTHERS LEVEL CROSSING  
REDUCTION)  
ORDER**

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**PROOF OF EVIDENCE**

**-OF-**

**SUSAN TILBROOK**

Document Reference	NR32/1
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# 1 PROW Project Level Proof

## 1.1 Qualifications/experience

- 1.1.1 I am Susan Tilbrook, a Projects Director with Mott MacDonald, which is a major engineering, management and development consultancy. Mott MacDonald is one of the largest firms of consulting engineers and environmental specialists in the UK and employs in excess of 16,000 staff. We have a strong track record of helping to deliver transport projects in the highways and rail sectors.
- 1.1.2 My qualifications include a BEng(hons) in Civil and Structural Engineering from the University of Sheffield and I am a member of the Chartered Institution of Highways and Transportation.
- 1.1.3 I have 28 years' experience in the planning, design and construction of transport infrastructure projects. This has included working in the highways team of a Local Authority for 10 years and within the Road Safety team of the same Local Authority for 2 years. During this time I was responsible for designing and supervising the construction of new highways, the design of major and minor highway improvements and road safety schemes. I also carried out Road Safety Audits as part of my role within the Road Safety team. For the past 16 years I have worked for Mott MacDonald on many major transport projects through the various stages of project development including feasibility, planning and approvals, detailed design and construction. Projects have included A4146 Stoke Hammond Bypass, The Great Yorkshire Way, East Coast Main Line (ECML) Level Crossing Closure Project (Northern Section).
- 1.1.4 The ECML Level Crossing Closure Project (Northern Section) was a project to consider the feasibility of the closure 36 railway level crossings in three local authority areas (Lincolnshire, Nottinghamshire and Doncaster) and to develop preferred solutions for the provision of alternative means of access, which could be taken forward under a Transport and Works Act Order application. I led the development of the technical design from option identification through to selection of the preferred solution in consultation with multiple local authorities. Proposed infrastructure on the project included a highway underpass, several highway bridges and ramped footbridges, new lengths of highway with junction improvements and traffic management, as well as public right of way diversions. The work also involved the preparation of information for and attendance at public consultation events. Involvement with the project
- 1.1.5 I am Mott MacDonald's design lead for our inputs to the Anglia Level Crossings Reduction project ("the project") and am the designated Contractor's Engineering Manager (CEM) for the project, which means that I have overall accountability for all engineering activities included within Mott MacDonald's scope of work on this project. Mott MacDonald's role on the project has included:
- a. Development and assessment of options for alternative rights of way required in order to close level crossings
  - b. Diversity Impact Assessments (DIA)
  - c. Environmental assessments
  - d. Public and stakeholder consultation
- 1.1.6 My evidence will primarily address (a) above. I also make reference to points (b) to (d) where relevant, although I would note that I am not an expert witness on environmental or DIA assessments (those assessments were carried out by other teams within Mott MacDonald), and

that public and stakeholder consultation is addressed in more detail in the Proofs of Evidence of Andrew Kenning and Nigel Billingsley.

- 1.1.7 I have been involved with the Anglia Level Crossings Closure Project since 2015 when our first commission commenced. Our involvement with the project has continued through until present day with a short 2 month break between commissions in early 2016. I therefore have a close understanding of the how and why the alternative routes have developed into the final TWAO proposals and the constraints, considerations and views that have been taken into account during the process.

## 1.2 Overview

- 1.2.1 My evidence concerns the development of proposed alternatives for each crossing and I will first set out the general approach to option identification and assessment together with reference to relevant standards and guidance. I will then address the following on a crossing by crossing basis:

- a. Purpose and characteristics of the route being closed, extinguished or amended
- b. Selection of alternative of the diversionary route or rights
- c. Any alternatives considered
- d. How the alternative or diversionary route fulfils the purpose of the original route and the relationship to the wider PROW network (where applicable)
- e. If route includes road walking, how safe that route is and any necessary mitigation measures proposed
- f. Engagement with the local Highway Authority (HA) and any changes made in response to HA comments or other consultation responses
- g. Consideration of any alternatives proposed by objectors to the Order
- h. Whether the proposed route is suitable and convenient

## 1.3 General Approach

- 1.3.1 These proposals have been made as part of a Transport and Works Act Order Application.
- 1.3.2 Section 5(6) of the Transport and Works Act states that an order shall not extinguish a public right of way over land unless the Secretary of State is satisfied that an alternative right of way has been or will be provided, or that one is not required. Although there is no definition of 'required' in the Act itself, the DfT Guide to TWA Procedures states that if alternative is to be provided, the Secretary of State would wish to be satisfied that it will be a convenient and suitable replacement for existing users. This is the basis on which alternative routes have been identified and assessed.
- 1.3.3 It should be noted that this is not an application under the Highways Act 1980, under which any proposed diversion must be suitable and it must also take into account 'public enjoyment of the footpath as a whole'. This is a different statutory test to that under s.5(6) of the Transport and Works Act 1992.

## 1.4 The Strategy

- 1.4.1 The Anglia Level Crossing Reduction Strategy (The Strategy) comprises five phases; however, the application and Mott MacDonald's commission only relates to Phases 1 and 2. The Strategy

is set out in core document **NR18**; Client Requirements Document Anglia CP5 Level Crossing Reduction Strategy

- 1.4.2 Phase 1 (mainline) and 2 (branch line) comprise level crossings where the proposals are located in the vicinity of an existing alternative means of crossing the railway, do not require any new form of grade separation across the railway, and where benefits may be deliverable and affordable within Network Rail Control Period 5 (to 31/3/19) and Control Period 6 (to 31/03/2024). Network Rail specified within Route Requirement Documents (RRD)<sup>1</sup> that circa 230 level crossings should be considered within the Phase 1 and 2 GRIP Stage 1 concept feasibility study.
- 1.4.3 Phases 3 to 5 include new grade separated crossings of the railway, and diversion or downgrading of major highways. These phases will require more substantive associated infrastructure and this means that they will take longer to develop and secure the necessary funding. Level crossings within Phase 3, 4 and 5 of The Strategy are not included within the application.
- 1.4.4 The Strategy is specifically dealt with by Ms Eliane Algaard in her Proof of Evidence, **NR28/1**.

## 1.5 Option Identification and Development

- 1.5.1 Network Rail identified concept solutions for Phase 1 and 2 of The Strategy in early 2015. Mott MacDonald was commissioned to review the feasibility of the concept solutions and make recommendations for alternatives that should be considered. This work was carried out between August 2015 and February 2016. In August 2015, the number of level crossings by County (or Unitary Authority) under study were: Norfolk x 41, Suffolk x 31, Essex x 56, Cambridgeshire x 35, Thurrock x 3, Hertfordshire x 9 and Havering x 4. After considering the GRIP Stage 1 feasibility study outcomes and reviewing funding, Network Rail reduced the number of Phase 1 and 2 level crossings to be taken forward into the next stage of the project. Norfolk and certain Suffolk level crossings were not progressed as part of the project due to the funding available.
- 1.5.2 In April 2016 Mott MacDonald was commissioned to develop the concept solutions into preliminary designs for the crossings to be taken forward within Phase 1 and 2 and to carry out the necessary assessment work determine if they were a convenient and suitable replacement for existing users.
- 1.5.3 During the development work, other level crossings were withdrawn from the scheme by Network Rail due to technical issues, third party consideration or affordability reasons. The decision-making process is dealt with by Mr Andrew Kenning in his Proof of Evidence, **NR30/1**

## 1.6 Assessment of Concept Solutions

- 1.6.1 In order to assess the feasibility of the concept solutions and identify alternative options the following factors were considered:
- a. Changes to rights of way and crossing rights
  - b. Level Crossing information
  - c. Diversity Impact Assessment (DIA)
  - d. Land Ownership and use
  - e. Safety
  - f. Environmental issues

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<sup>1</sup> A copy of the RRDs for Essex and Hertfordshire are appended to Andrew Kenning's Proof of Evidence

- g. Costing of the proposals and maintenance liability
- h. Stakeholder consultation

- 1.6.2 The project team visited each level crossing where access was available. Site observations were generally made from publicly accessible land and no railway lineside access was permitted.
- 1.6.3 Baseline data regarding each crossing was provided by Network Rail which gave details about the physical infrastructure at the crossing, how it currently operates and the rights over it, line speeds, usage data and the current level crossing risk assessment details.
- 1.6.4 The project team considered the proposed amendments to the rights at the crossing and what rights the alternative route would need to accommodate. For example, would the route need to accommodate pedestrians, equestrians or vehicles etc. Our assessment also included consideration of the proposed alternative route within the overall network of public rights of way, existing highways and where appropriate private means of access. The availability and condition of existing features within the existing highway network such as bridges, footways and verges was considered.
- 1.6.5 In order to assist Network Rail to meet their Public Sector equality duty under the Equality Act, a DIA scoping exercise was undertaken by Mott MacDonald's DIA specialist to provide a preliminary assessment of the likely impact that closure of each level crossing could have on their surrounding communities, and to determine which of the level crossings may require a full DIA. I will describe the DIA process in section 1.16 of my Proof of Evidence. This exercise informed the assessment work to determine if the viability of the concept solution could be affected, and if an alternative option existed that might be more appropriate.
- 1.6.6 Land ownership details were acquired for land parcels in the vicinity of the proposals to identify the likely impact on private landowners and to understand if land ownership and use could affect the viability of the concept solution.
- 1.6.7 Safety and security on the proposed alternative routes was considered. This assessment included consideration of personal security in the new environment and also road safety where the new routes would interface with both public and private roads.
- 1.6.8 The need to carry out a road safety audit (RSA) was considered for each concept solution by a road safety specialist within the Mott MacDonald design team. Crossings where alternative routes interfaced with public highways were assessed to determine if a RSA was required to confirm the viability of taking the concept solution forwards. This assessment included consideration of existing pedestrian and other non motorised user facilities on the highway, category and nature of the road, and the posted speed limit. I will describe the RSA process in section 1.15 of my Proof of Evidence.
- 1.6.9 Mott MacDonald undertook a high level environmental desk based study to identify environmental constraints within a 2km radius of each level crossing (the "study area"). These included
- a. Flood risk zones within 500m of study area
  - b. Agricultural land classification within 1km of study area
  - c. Watercourses within 10m of study area or, ponds, drainage ditches etc within 500m of study area
  - d. Active/historic landfill sites within 500m of study area

- e. Designated statutory sites of nature conservation (e.g. SSSIs, LNRs, AONBs, etc.) within 2km of the study area
- f. Historic and cultural heritage features (e.g. Conservation Areas, Listed Buildings Scheduled Monuments, Registered Parks & Gardens etc.) within 1km of study area
- g. Nearby receptors (e.g. hospitals, schools, residential)
- h. Ancient Woodland, Hedgerows

1.6.10 Using the data gathered from the high level review and observations made during the site visits, potential environmental issues that might affect the viability of the concept solution were identified.

1.6.11 Mott MacDonald supported Network Rail during consultation carried out at this stage of the project with the following key stakeholders:

- a. Essex County Council
- b. Hertfordshire County Council
- c. London Borough of Havering
- d. Southend-on-Sea Borough Council
- e. Thurrock Borough Council
- f. Historic England
- g. Environment Agency
- h. Natural England
- i. Highways England
- j. Local user groups

1.6.12 Feedback received from consultation with these stakeholders was considered in the assessment of the viability of the proposals and changes that might need to be incorporated into the future development of each crossing proposal.

1.6.13 The concept solutions proposed by Network Rail were assessed by Mott MacDonald as described in paragraphs 1.6.2 to 1.6.12 and based on the viability of the proposals recommendations were made as follows:

- a. The concept solution is viable and can be taken forward for development.
- b. The concept solution has some areas of concern and an alternative option has been identified that should be progressed in parallel.
- c. The concept solution has some areas of concern and is not suitable for progressing. An alternative solution has been identified that should be progressed.
- d. The concept solution has some areas of concern and is not suitable for progressing. No suitable alternative has been identified and the level crossing closure should be considered in a later phase of the strategy.

## 1.7 Development of the Proposed Solutions

1.7.1 Following on from the assessment of and recommendations for concept solutions Mott MacDonald were commissioned to develop the proposed solutions to allow the preparation of a



Transport and Works Act Order Application. This required the designs to be developed to sufficient detail to establish the rights and any land required to deliver the project. The design proposals, principles and infrastructure components are set out in the Essex Design Guide, core document **NR12**. The infrastructure components described in this document are illustrative and therefore give a good representation of what will be built when the scheme is implemented, but the final works will be subject to detailed design and agreement with the relevant adopting authorities.

1.7.2 As part of the development of the alternative routes for each crossing the following activities were carried out:

- a. Collection of further level crossing census data
- b. Collection of traffic data where appropriate
- c. Support to Network Rail during 2 rounds of public consultation and a further round of public engagement for selected crossings.
- d. Support to Network Rail during consultation with Stakeholders
- e. Assessment of the suitability and convenience of the proposed route
- f. Environmental assessment of the impact of the proposals and preparation of an environmental screening request
- g. An appraisal of the options considered for each level crossing closure proposal.
- h. Outline design of infrastructure requirements
- i. Road Safety Audits
- j. Diversity Impact Assessments

1.7.3 I describe these activities in more detail in sections 1.8 to 1.16

## 1.8 Census and Traffic Surveys

1.8.1 The project team arranged for the collection of further level crossing census data to help understand how each crossing was used. The census surveys were commissioned to take place for a period of nine days which were to include two weekends with 24 hours of footage being recorded each day. The surveys were specified to be in accordance with Network Rail standard GRD007 which is used nationwide by Network Rail. This document outlines a standard form of data collection which provides information that can be used to monitor and assess operations at each crossing. Several additions were made to the standard GRD specification to reflect the nature of the individual crossings being considered, with pedestrian use class being expanded to capture additional detail regarding the nature of pedestrians and cyclists using the crossings. The following classifications of users were recorded:

- a. Pedestrian census
  - i. Adult pedestrians;
  - ii. Accompanied children;
  - iii. Unaccompanied children;
  - iv. Elderly pedestrians;
  - v. Physically impaired pedestrians;
  - vi. Pedestrians with a pram/pushchair; and
  - vii. Pedestrians on a mobility scooter.
- b. Vehicle census

- i. Cars;
- ii. Light Goods Vehicles;
- iii. Motor cycles;
- iv. Heavy Goods Vehicles;
- v. Agricultural vehicles (tractors/vehicles with trailers);
- vi. Buses;
- vii. Equestrians;
- viii. Pedal Cycles; and
- ix. Herded animals.

- 1.8.2 The DfT's Transport Assessment Guidance outlines that highway surveys should be carried out in a neutral month, making specific reference to late March and April, May, June, September, October and November. It was considered that in order to record the maximum likely usage, June or early July would be the most appropriate period to undertake the surveys as it was outside of the school holiday periods but with better than average weather conditions and longer daylight hours, which typically encourage greater use of public rights of way.
- 1.8.3 The census survey results formed part of the information that was assessed to give the design team an understanding of the numbers and purpose of usage of each level crossing, along with consultation and stakeholder engagement feedback, and a review of the wider network and environment. The actual number of users recorded was taken as a guide to the likely level of usage but not used as a definitive figure for numbers of people using each crossing. We were also informed by local authorities and user groups that walking events may not have been picked up in the surveys. The Census survey data can be found in core document **NR25**.
- 1.8.4 Automatic Traffic Count (ATC) surveys were also commissioned to take place on certain diversion routes for a period of nine days, again to include two weekends, with 24 hours of data to be recorded each day. These surveys were used to help understand the volume, composition and speed of traffic on diversionary routes and how that might impact of the use of the route by PROW users. The ATC survey data can be found appended to my Proof of Evidence, document **NR32/2 at Tab 1**.
- 1.8.5 I will give details of the results of the census surveys, and ATC surveys where relevant, in each of my crossing specific evidence in section 2.

## 1.9 Public Consultation

- 1.9.1 Mott MacDonald supported Network Rail through two rounds of public consultation and a one further public information exercise for crossings where there were some late changes to the proposals. Our role included the following activities:
- a. Preparation of documentation and plans to show the scheme proposals
  - b. Attendance at public consultation events
  - c. Analysis of feedback
- 1.9.2 Details of the Public Consultation activities held as part of the project are set out in the Statement of Consultation, core document **NR05**. The public consultation process is dealt with by Mr Andrew Kenning in his Proof of Evidence, document number **NR30/1**.

- 1.9.3 The public consultation events provided an opportunity to explain the proposals to members of the public who attended the events. The scheme information was also available on Network Rail's website.
- 1.9.4 Members of the public who attended the events were invited to provide feedback via a questionnaire at each round of consultation. Members of the public were also able to provide feedback by email or letter. The feedback was used to help the design team understand how the existing crossings and routes were used, views on the proposals, concerns of users and if there were any other suggested proposals that should be considered. The questionnaire was also available as a web based form that could be completed online. Copies of the questionnaires are appended to the Proof of Evidence of Mr Andrew Kenning, document **NR30/2 at Tabs 4 and 5**.
- 1.9.5 The first round of Public Consultation was held in June 2016 and the second round in September and October 2016. The consultation process allowed feedback to be taken on board in the development of the options and finalising the proposals to be submitted within the Order.

## **1.10 Stakeholder Engagement**

- 1.10.1 The project team also consulted with key stakeholders regarding the project. These included the following organisations:
- a. Essex County Council
  - b. Hertfordshire County Council
  - c. London Borough of Havering
  - d. Southend-on-Sea Borough Council
  - e. Thurrock Borough Council
  - f. District, Parish and Community Councils
  - g. Members of Parliament
  - h. Schedules 5 and 6 consultees
  - i. Landowners
  - j. Local user and interest groups
- 1.10.2 The consultation information was issued to the relevant Highway and Planning Authorities in advance of each round of public consultation. Representatives from several Councils attended the public consultation events. Workshops or teleconferences were held with technical officers from each Local Highway Authority (including representatives from the PROW and highway teams) following each round of consultation. Minutes from each workshop or teleconference are appended to my Proof of Evidence, document **NR32/2 at Tab 5**.
- 1.10.3 The Highway Authority meetings were used to gain an understanding of the acceptability of the proposals to each Authority and any mitigation measures considered necessary by their officers. The PROW officers were able to share their knowledge of the PROW network in the vicinity of the proposals and the principles of definitive widths, infrastructure requirements and maintenance considerations were discussed with the design team.
- 1.10.4 Feedback from the other consultees and landowners was considered in the assessment of the overall acceptability of the proposals.
- 1.10.5 Landowner engagement is specifically dealt with by Mr Nigel Billingsley in his Proof of Evidence.

## 1.11 Suitability and Convenience of the Proposed Route

- 1.11.1 Further to the assessment work carried out on the concept solutions, additional data from surveys, public consultation, stakeholder engagement and a study of the existing PROW network was used to gain a better understanding of the level and purpose of use of the routes that would be affected by the level crossing closures.
- 1.11.2 The design team assessed how the proposed diversion route would fit into the wider network considering:
- a. Access to services
  - b. Local walks and circular routes
  - c. Long distance routes
  - d. Gaps in the existing off-road PROW network
- 1.11.3 When assessing the diversion route, the design team considered the features of the diversion route as follows:
- a. Use of existing footpaths and footways
  - b. Provision of off road Public Rights of Way
    - i. Field edge
    - ii. Cross field
  - c. Use of continuous highway verges - suitability of verge width and maintenance requirements
  - d. Use of partial highway verges
  - e. Use of rural carriageway, no suitable verges
  - f. Necessary infrastructure works
- 1.11.4 Where Network Rail structures were proposed as a means of crossing the railway, as built or inspection data was provided by Network Rail to help the design team understand any potential restrictions on loading, headroom or width. More detailed studies were undertaken at existing road bridges to assess the feasibility of improving facilities for pedestrians where necessary.
- 1.11.5 In addition to advice given by each Local Highway Authority regarding their requirements for the design of PROWS, the design team also referenced the following design guidance when considering the suitability of the route:
- a. Design Manual for Roads and Bridges
    - i. TD 9/93 - Highway Link Design
    - ii. TD 27/05 - Cross-Sections and Headrooms
    - iii. TA 90/05 - The Geometric Design of Pedestrian, Cycle and Equestrian Routes
    - iv. TD 36/93 - Subways for Pedestrians and Pedal Cyclists Layout and Dimensions
    - v. HD 19/15 - Road Safety Audit
    - vi. BD 29/04 - Design Criteria for Footbridges
  - b. Department for Transport 2005: Inclusive mobility. A guide to best practice on access to pedestrian and transport infrastructure
- 1.11.6 In order to assist with the understanding of the wider PROW network I have appended wider OS mapping to my Proof of Evidence, **NR32/2 at Tab 9**.

- 1.11.7 I will discuss how each level crossing proposal provides a suitable and convenient alternative in my crossing specific evidence in section 2.

## 1.12 Environmental assessment

- 1.12.1 In order for the Secretary of State to determine if the proposed works under the Network Rail (Essex & Others Level Crossing Reduction) Order would be likely to have significant effects on the environment during construction or operation, a high level assessment was carried out to allow an Environmental Impact Assessment (EIA) Screening Request to be submitted to DfT on 31 January 2017 with supporting information, in accordance with Rule 7 of the Transport and Works (Applications and Objections Procedure)(England and Wales) Rules 2006.
- 1.12.2 The assessment considered the characteristics of the project having regard, in particular, to; the size, nature and location of the project, the cumulation with other projects, the use of natural resources, the production of waste, pollution and nuisances and the risk of accidents. It was assumed that all construction contractors would be obliged to comply with Network Rail's environmental contract requirements and they will be required to produce a contractor's construction environment management plan prior to commencing any physical works and to comply with any relevant legislation.
- 1.12.3 The following environmental topics were considered in relation to the proposals to close or downgrade level crossings and provide diversionary routes (see summary note on the Environmental Assessment undertaken by Mott MacDonald appended to my Proof of Evidence **NR32/2 at Tab 8**):
- a. Ecology;
  - b. Landscape;
  - c. Historic environment;
  - d. Ground conditions;
  - e. Water resources;
  - f. Traffic and transport;
  - g. Noise;
  - h. Air quality; and
  - i. Socio-economics and community.
- 1.12.4 The assessment concluded that no potential significant environmental effects were likely during construction or operation of the proposed works. Therefore, for the scheme as a whole, it was considered that an EIA would not be required in support of the order application, due to the size, nature and location of the works.
- 1.12.5 On 15<sup>th</sup> March 2017 the Secretary of State issued a screening decision which confirmed that the project would be unlikely to have a significant effect on the environment and that an Environmental Impact Assessment was not required to support the Network Rail (Essex & Others Level Crossing Reduction) Order. The Screening Decision letter can be found at core document **NR11**.
- 1.12.6 Notwithstanding the Screening Decision, as is normal for a Transport and Works Act Order application, Network Rail has also made a request to the Secretary of State for deemed planning permission for the development authorised by the draft Order (NR10). The permission requested is intended to be granted subject to conditions relevant to the works proposed which provide certain environmental controls. These include conditions to limit working hours, to protect nesting birds during the bird nesting season, to require a plan to describe procedures if

protected species are unexpectedly discovered during the works, to protect the crop mark scheduled monument at Ardleigh and to require an archaeological scheme to identify any location where a watching brief is required during construction and procedures if significant archaeological remains are found. The plans are to be approved by the local planning authority in writing before works commence and it will be for the local planning authority to enforce the planning conditions.

## 1.13 Appraisal of Options

- 1.13.1 In order to demonstrate consistency throughout the assessment process and to show that all options were considered objectively, they were appraised under the headings considered in the Department for Transport's Transport Analysis Guidance (WebTAG) using the New Approach to Transport Appraisal (NATA) methodology. The guidance identifies the need to undertake appraisal in a proportionate manner and enabling a lighter touch approach, where appropriate.
- 1.13.2 The guidance provides a framework for assessing schemes against the Government's objectives for transport namely:
- a. Economy,
  - b. Environmental,
  - c. Social,
  - d. Public Accounts
- 1.13.3 In addition, as the TWAO places a requirement on the Promoter of a TWAO scheme to undertake consultation, it was considered that there was a requirement and a benefit to include assessment of the results of the Public Consultation exercise, so that the option acceptability could be considered as an objective in the wider appraisal.
- 1.13.4 In order to ensure that the options developed for each level crossing were assessed in a consistent way, considering the above objectives, an Appraisal Summary Table (AST) was developed in which the assessment could be recorded and comparative benefits and adverse impacts could be seen. A template of the AST is appended to my Proof of Evidence, document **NR32/2 at Tab 6**.
- 1.13.5 The ASTs for the initial stage were assessed at a high level and only considered objectives based on the information available at the time of the studies. They were completed to a level of detail commensurate with the concept/outline nature of the options development.
- 1.13.6 Options were appraised against the above objectives, and if sufficient information was available, they were also scored against their associated sub-categories using the matrix shown below using the assessment criteria provided. It should be noted that the scoring matrix is a comparative scale used to differentiate options and does not necessarily imply detrimental impacts.
- |         |                |         |                |         |
|---------|----------------|---------|----------------|---------|
| Adverse | Slight Adverse | Neutral | Slight Benefit | Benefit |
|---------|----------------|---------|----------------|---------|
- 1.13.7 The ASTs were used to assist NR with their decision making process for selection of the alternative routes to take forward for development and in the order application following each round of public consultation.

## 1.14 Outline design of infrastructure requirements

- 1.14.1 The level of design necessary at this stage of the project is to be able to give users and stakeholders a good understanding of the proposals and to carry out the following assessment work:
- a. Feasibility of the proposals
  - b. Requirements for land and rights
  - c. The environmental impacts
  - d. An estimate of the cost of implementation
- 1.14.2 The design team discussed design principles and standard details with each Highway Authority and then used this information to develop a Design Guide for the crossing proposals in the Network Rail (Essex and Others Level Crossing Reduction) Order, core document **NR12**.
- 1.14.3 Volume 1 of the design guide describes the design principles and infrastructure components to be incorporated into the project. The infrastructure components described in this document are illustrative and therefore give a good representation of what will be built when the scheme is implemented, but the final works will be subject to detailed design and agreement with the relevant adopting authorities.
- 1.14.4 Any level crossings where the proposals require more than the standard infrastructure components are described in more detail and I will discuss this in my crossing specific evidence.
- 1.14.5 Volume 2 of the design guide describes the design freeze proposals and includes drawings for each level crossing closure proposal. The drawings show the proposed diversion routes together with necessary infrastructure components required to make the routes useable.

## 1.15 Road Safety Audits

- 1.15.1 The Road Safety Audit (RSA) procedure has been developed to ensure that operational road safety experience is applied during the design and construction process in order that the number and severity of collisions is kept to a minimum. Road Safety Auditors identify and address problem areas using the experience gained from highway design, road safety engineering, collision analysis and road safety related research. A Highway Authority's aim is that the Road Safety Audit process will lead to schemes that rarely require road safety related changes after opening.
- 1.15.2 Document HD 19/15, Road Safety Audit, contained within Volume 5 of the Design Manual for Roads and Bridges requires that RSAs are carried out for Highway Improvement Schemes, i.e. all works that involve construction of new highway or permanent change to the existing highway layout or features. This includes changes to road layout, kerbs, signs and road markings, lighting, signalling, drainage, landscaping, communications cabinets and the installation of roadside equipment. HD 19/15 sets out the process for undertaking RSAs.
- 1.15.3 RSAs are carried out at the following stages of highway improvement schemes as follows:
- a. Stage 1 Road Safety Audit: Completion of Preliminary Design
  - b. Stage 2 Road Safety Audit: Completion of Detailed Design
  - c. Stage 3 Road Safety Audit: Completion of Construction
  - d. Stage 4 Road Safety Audit: Monitoring
- 1.15.4 The aim of an RSA is to identify potential road safety problems that may affect any users of the highway and to suggest measures to eliminate or mitigate those problems. Whilst many of the



proposals on this project do not involve any permanent change to the existing highway layout or features, the RSA process was considered an appropriate assessment methodology to ensure that all roads that form part of a proposed route for use by non-motorised road users (NMUs) were adequately reviewed by road safety professionals. The proposal to carry out RSAs was supported by each Highway Authority.

- 1.15.5 In line with the process set out in HD 19/15, a Road Safety Audit Brief was prepared by the project team giving instructions to the independent (not involved with preparing the design proposals) Road Safety Audit Team defining the scope and details of the proposals to be audited. Stage 1 RSAs were undertaken for the project as the design proposals are at a preliminary design stage. The brief identified the following factors that may affect road safety:
- a. Non-motorised users (NMUs) are being diverted to alternative level crossings or grade separated crossings where they may be exposed to live traffic by:-
    - i. walking along existing footways;
    - ii. walking in existing grassed verges; or
    - iii. walking in the carriageway on rural roads.
  - b. The interface of NMUs and agricultural vehicles on the PROWs; and
  - c. The access points off the public highway for occasional use by large agricultural vehicles.
- 1.15.6 The Road Safety Audits were carried out by an independent Audit Team within Mott MacDonald. The Road Safety Audit Team comprised two people (a Team Leader and Team Member). Both team members have appropriate training, skills and experience to carry out the role.
- 1.15.7 The Road Safety Audit team visited each location of the proposed diversion routes where they interfaced with the public highway network. Following the site visits a report was produced by the Road Safety Audit Team describing any road safety related problems identified by the Road Safety Audit Team and the recommended solutions to those problems. The reports are contained within core document **NR16**.
- 1.15.8 The design team prepared a Road Safety Audit Response Report, which is contained within core document **NR16**. The report provides a response to the problems and recommendations raised in the Road Safety Audit Report giving details of any changes made to mitigate any issues.
- 1.15.9 I will describe any particular RSA issues raised during the design process within each relevant crossing specific evidence.

## 1.16 Diversity Impact Assessments

- 1.16.1 A DIA is a systematic assessment of the likely or actual effects of policies or proposals on social groups with the following protected characteristics (as defined by the Equality Act 2010):
- a. Age, including children aged under 16, younger people aged 16-24, and older people aged 65 and over
  - b. Disability, including people with sensory impairments, mobility impairments, learning disabilities, mental wellbeing disabilities, and long term medical conditions
  - c. Gender reassignment, including persons who are proposing to undergo, are undergoing, or have undergone gender reassignment
  - d. Marriage and civil partnership, with a focus purely on discrimination on the basis of whether someone is married or in a civil partnership – single people are not covered by this characteristic;



- e. Pregnancy and maternity, including pregnant women and nursing mothers
- f. Race and ethnicity, including ethnic or national origins, colour or nationality
- g. Religion or belief, including all religion, faith or belief groups, including lack of belief
- h. Sex, including both women and men
- i. Sexual orientation, including heterosexuals, as well as lesbians, gay men and bisexual people

- 1.16.2 In order to assist Network Rail in complying with their Public Sector equality duty under the Equality Act, a scoping study was carried out at the concept solution review stage to identify potential issues related to the closures and gather evidence on the potential impacts on people with different protected characteristics in order to make an assessment about which crossings required further consideration through a full DIA. .
- 1.16.3 This exercise informed the assessment work to determine if the viability of the concept solution could be affected, and if an alternative option existed that might be more appropriate.
- 1.16.4 At the development of the proposed solutions stage an Equality and Diversity overview report was prepared by Mott MacDonald on behalf of Network Rail. The preparation of the DIA overview document included a review of the developed proposals at the level crossing sites within the Essex and Others Order to understand the content and proposed changes at each site.
- 1.16.5 A number of full DIAs were carried out following the scoping study and overview. These assessments identified key conclusions and recommendations relating to the proposed level crossing closures within Essex and Others Order, and the design team used this information to incorporate any necessary features or mitigation measures into the proposals.
- 1.16.6 I will describe any particular DIA issues raised and how they were mitigated in my crossing specific evidence.

## **2 Crossing Specific Details**

## 2.1 E01 Old Lane

- 2.1.1 The crossing is located on a public footpath (EX/203/13) which forms part of an extensive network of footpaths in the local rural area. The small town of Roydon lies to the South, but the level crossing is completely surrounded by agricultural fields. From the south side of the railway the footpath network runs in a north-easterly direction across fields before crossing the railway. The footpath then heads in a northeast direction towards the River Stort, located approximately 120m northwest of the crossing at its nearest point. The approach to the level crossing consists of a poorly defined footpath with dense vegetation on either side of the railway and the crossing does not lead to any community resources. There is a wooden stile on approach to the level crossing.
- 2.1.2 At the time of the project census surveys, the level crossing was temporarily closed and as a result the usage data sought to capture instances of pedestrians approaching the level crossing with the intention to cross the railway line but were prevented from doing so. No users were recorded intending to use the crossing during the survey period. It is acknowledged that this data is not representative of 'normal' crossing usage at this location.
- 2.1.3 Of the 6 people that provided feedback during the first round of public consultation, 3 indicated that they rarely used the crossing, 1 used it daily, 1 weekly and 1 fortnightly. Responses indicated that the crossing is mainly used for leisure purposes with 1 person stating that they used it for access to school.
- 2.1.4 Based on location of the crossing point and feedback from public consultation, it was considered that the crossing provides leisure and recreational access to the local footpath network and access to the north of the railway to the River Stort.
- 2.1.5 The proposed alternative route can be seen on drawing number MMD-367516-E01-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.1.6 Users from the south heading north on existing footpath EX/203/45 or northeast on existing footpath EX/203/13 towards Old Lane level crossing will be diverted east onto existing footpath EX/185/79 where they can cross the railway at Wildes level crossing. Users can then continue north of the railway on existing footpath EX/203/44 and re-join the Public Right of Way network.
- 2.1.7 Footpath EX/203/13 over the level crossing, south of the railway up to Footpath EX/203/45 and north of the railway up to Footpath EX/203/44 will be extinguished to prevent the creation of a footpath dead-end.
- 2.1.8 The diversion route is an additional length of approximately 150m, however, the origin and destination points will affect the overall diversion length for many users.
- 2.1.9 The diversion route is on unsurfaced paths, which is the same as the existing footpath.
- 2.1.10 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.1.11 The alternative route forms part of the existing network of footpaths in this area and provides a link to the north of the railway to access the River Stort. The route is in a similar environment and although it is slightly longer than existing, as it provides leisure walking it is considered acceptable.

- 2.1.12 In response to the TWAO submission different alternative routes or concepts were suggested by Objectors as part of the TWAO process. These have been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (pages 21 and 39)**.
- 2.1.13 The proposals at E01 Old Lane have been discussed in 2 workshops with the local highway authority. Officers had no objections to the proposed route.
- 2.1.14 Following consideration of use of the existing route across Old Lane level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route

## **2.2 E02 Camps**

- 2.2.1 Camps level crossing is located on a public footpath (EX/185/75) in a rural area. The crossing provides access between agricultural fields. To the south, the crossing is accessed via a grass path which starts approximately 250m south east of the crossing in an area with some residential housing and farm buildings at Roydon Lea. To the north of the crossing there are only agricultural fields, which are cut off by the River Stort, around 350m north-west of the crossing. There are no community facilities in the area.
- 2.2.2 From the south the footpath runs in a north westerly direction from Roydon Lea before crossing the railway and heading north towards the River Stort. Adjacent to the footpath level crossing is a private vehicular level crossing. The approach to the level crossing on both sides is via a well-worn track across fields, and is the obvious route from the farmhouse in the south-east to the field in the north-west. A telephone is provided for farm vehicle users and the level crossing has metal gates on both sides. There are also stiles on both sides of the crossing.
- 2.2.3 A census survey carried out in June 2016 recorded a total of 9 pedestrians using the level crossing with the busiest day being Thursday 14th July 2016 when 3 pedestrians were recorded.
- 2.2.4 Of the 8 people that provided feedback during the first round of public consultation, 5 indicated that they rarely used the crossing, 1 never used it and 2 people used it monthly. Responses indicated that the crossing is mainly used for leisure purposes.
- 2.2.5 Based on location of the crossing point, usage figures and feedback from public consultation, it was considered that the crossing provides leisure and recreational access to the local footpath network and access to the north of the railway to the River Stort for a relatively small number of people.
- 2.2.6 The proposed alternative route can be seen on drawing number MMD-367516-E02-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.2.7 The existing public footpath over the level crossing will be extinguished and private vehicular rights will be retained. Users heading south on existing footpath EX/185/75 towards Camps footpath level crossing will be diverted either west to Wildes level crossing or east to Sadlers level crossing. The route to Wildes level crossing would be on existing footpath EX/185/181 and then south onto existing footpath EX/203/44. Users can then continue south of the railway on existing footpath EX/203/44 where they will connect to a proposed 2m wide unsurfaced footpath along field margins (approximately 715m in length). This new footpath will divert users east to existing footpath EX/185/122. The route via Sadlers level crossing from existing footpath EX/185/75 would be to head east on existing footpath EX/185/181 and then south onto existing footpath EX/185/74. Users can then continue south over the railway and connect to existing

footpath EX/185/122. Footpath EX/185/75 approaching the level crossing north of the railway will be extinguished and footpath EX/185/75 south of the railway will be extinguished to prevent the creation of a dead end.

2.2.8 The route of the new footpath will generally be less than 5% gradient, however, there will be some limited sections where the gradient is steeper than this, which is similar to the existing route. The maximum additional walking length of the diversion route is 950m, however, the origin and destination points will affect the overall diversion length for many users.

2.2.9 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA Action	Designers Response
As the diversion routes incorporate level crossings with a lack of protective equipment (Wildes and Sadlers), consideration should be given to improving pedestrian safety at both these sites, for example the implementation of controlled pedestrian crossing systems. As a result of this project, it is understood that Network Rail is reviewing ALCRM scores (incorporating level of use and infrastructure) for all level crossings which form part of a diversion route.	Network Rail to undertake ALCRM modelling and consider any improvement works to remaining crossings
Ensure that the proposed new footpath is constructed to guidelines outlined in the Equality Act 2010, i.e. using appropriate materials and with a gradient of no more than 5% (1 in 20).	Addressed
The proposed 2m width should help ensure equality of access for all users and support wayfinding through the incorporation of clear signage.	Permanent and temporary signing after the LX closure will be discussed in further detail with the highway authority at the detailed design stage. This can be incorporated within the adopted highway with the agreement of the highway authority.
Develop a communication strategy to ensure that local residents are kept abreast of developments, including scheduling of works, details of enhancements and improvements, and any other benefits of the scheme, particularly focussing on user safety.	NR to undertake at detailed design / implementation stage.

Review the DIA at every GRIP stage to ensure equality of access is maintained for all.	NR to undertake at detailed design / implementation stage.
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- 2.2.10 The new route to the south of the railway provides improved east west links between the footpath networks to the south east and south west of the crossing, giving footpath users continued flexibility in the way they access the footpaths within the area and choose routes across the railway. The alternative route also maintains the option to do a circular walk in the area. The proposed alternative routes will form part of the extensive network of footpaths in this area that access the River Stort. The route is of a similar standard to the existing route and although it is longer, as it provides leisure walking it is considered acceptable.
- 2.2.11 The following options were also considered, which can be seen on the consultation summary sheets in document **NR32/2 at Tab 2 and Tab 3**:
- a. Closure of both E02 Camps level Crossing and the adjacent Sadlers level crossing and use of an underbridge that lies to the east of Sadlers level crossing. A new foot path would be created along the north side of the railway that would follow a route on the north side of the local watercourse Cannons Brook, linking Camps and Sadlers level crossings to the underbridge, and a new north south footpath would link to the existing footpaths EX/185/22 and EX/185/74 on either side of the railway. (red route in **document NR32/2 at Tab 2, page 99**)
  - b. Closure of both E02 Camps level Crossing and the adjacent Sadlers level crossing and diversion to Wildes Level Crossing. A new 2m wide unsurfaced footpath along field margins (approximately 715m in length) would be provided on the south side of the railway linking existing footpaths EX/185/22 and EX/185/78. (blue route in **document NR32/2 at Tab 2, page 99**)
  - c. Closure of both E02 Camps level Crossing and the adjacent Sadlers level crossing and provision of a combination of the routes described in bullet points a and b above (see red route in document **NR32/2 at Tab 3, page 219**).
- 2.2.12 The above alternatives involved closure of both E02 Camps and Sadlers crossings and, following consultation feedback and assessment of the suitability of the proposed alternative routes, it was considered that this could only be taken forward if the underbridge to the east of Sadlers crossing could be made suitable for used pedestrians.
- 2.2.13 The existing headroom through the underpass is 1.5m with standing water present for much of the time. Essex County Council stated in meetings that a headroom of 2.3m would normally be required although this can be reduced to 2.1m for existing structures whilst being compliant with best practice guidance. As built details were unavailable for the existing underbridge, however, a high level assessment of the structure determined that there was too much risk associated with reducing ground levels through the structure to create additional headroom and in addition, flooding at the underbridge was a further issue that would be difficult to resolve. Therefore it was considered that the structure could not be used as part of the route.
- 2.2.14 The proposals at E02 Camps have been discussed in 2 workshops with the local highway authority. The proposed route has been developed to address concerns that Essex County Council Highways officers had with use of the underbridge to the east of Sadlers level crossing. They had no objections to the diversionary route to Wildes level crossing.

- 2.2.15 In response to the TWAO submission different alternative routes or concepts were suggested by Objectors as part of the TWAO process. These have been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (pages 21, 26 and 39)**.
- 2.2.16 Following consideration of use of the existing route across Camps level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.3 E04 Parndon Mill**

- 2.3.1 The existing public footpath EX/185/73 runs in a north easterly direction through a caravan park which is located immediately south of the railway, before crossing the railway and heading north over the River Stort at Parndon Mill, an arts centre, to join a byway. The River Stort is located approximately 50m north of the railway. The more densely populated residential area of Harlow extends southwards from Elizabeth Way, approximately 200m south of the crossing.
- 2.3.2 This crossing has been closed for some time and there is no crossing infrastructure to facilitate users crossing the line. The approach to the level crossing consists of a pathway through a woodland border on both sides.
- 2.3.3 No census data was collected at this crossing as it is closed, however, of the 7 respondents to the first round of public consultation, 1 stated that they used the crossing monthly, 2 rarely used it and 4 never used it.
- 2.3.4 Based on location of the crossing point and feedback from public consultation and usage data from other crossings in the area (Camps and Sadlers recorded 9 and 13 users respectively across a 9 day period), it was considered that the crossing would provide leisure and recreational access to the local footpath network and access to the north of the railway to the River Stort for a relatively small number of people.
- 2.3.5 The proposed alternative route can be seen on drawing number MMD-367516-E04-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.3.6 Users heading east along footpath EX/185/73 towards Parndon Mill level crossing are diverted south along a proposed 2m wide unsurfaced footpath (approximately 170m in length) to Elizabeth Way. Users will continue east along an existing segregated footway on Elizabeth Way and finally walk along Parndon Mill Lane using an existing overbridge to cross the railway. The overbridge does not have a footway on it, and therefore users will walk in the carriageway.
- 2.3.7 This proposal would require the extinguishment of part of footpath EX/185/73 south of the railway on approach to the level crossing and footpath EX/185/73 north of the level crossing to prevent the creation of dead-ends.
- 2.3.8 The total additional length of the diversion route is approximately 680m, however, the origin and destination points will affect the overall diversion length for many users.
- 2.3.9 A DIA scoping study concluded that, as there is currently no crossing infrastructure at this location and the crossing is currently closed, closure and redirection has the potential to improve accessibility at this location. Therefore, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.3.10 The alternative route provides a link to the network of existing pedestrian facilities to the south of the railway via a new section of footpath. Pedestrians accessing the footpath network from residential areas to the south of the railway currently make use of Parndon Mill Lane or

alternative crossings to the west of Pardon Mill level crossing to cross the railway. The new link between Elizabeth Way and footpath EX/185/73 will provide pedestrians with an additional route to the footpath network maintaining a choice of access to leisure and recreational walking routes in the area. Although the route is longer than existing, as it provides leisure walking it is considered acceptable.

- 2.3.11 The following options were also considered, which can be seen on the consultation summary sheets in **NR32/2 at Tab 2 and Tab 4**:
- a. Extinguishment of part of footpath EX/185/73 south of the railway on approach to the level crossing (approximately 80m in length) and footpath EX/185/73 north of the level crossing (approximately 40m in length). Users would be diverted to Elizabeth Way via footpath EX/185/122 and then use the existing segregated footway on Elizabeth Way and finally walk along Parndon Mill Lane using the existing overbridge to cross the railway. This option was discounted in favour of the proposed solution due to the increased length of road walking. See red route in **NR32/2 at Tab 2, page 101**
  - b. Extinguishment of part of footpath EX/185/73 south of the railway on approach to the level crossing (approximately 80m in length) and footpath EX/185/73 north of the level crossing (approximately 40m in length). Users heading east along footpath EX/185/73 towards Parndon Mill level crossing are diverted south along a proposed 2m wide unsurfaced footpath and the east through a future development site to meet Parndon Mill Lane where they would continue to use the existing overbridge to cross the railway. This option was discounted in favour of the proposed option due to unknown timescales for delivery of the development, when the proposed solution could be implemented without affecting any future development. See route shown in **NR32/2 at Tab 4, page 342**
- 2.3.12 The proposed diversion involves use of the existing public footway adjacent to Elizabeth Way. This proposal was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The Audit identified the following problem:
- It is proposed that the alternative route will require pedestrians to cross Elizabeth Way to the southern side and continue along an existing footway. This footway crosses Herons Wood at a point where no appropriate crossing point is provided. This may result in trips or falls, or conflicts between pedestrians and vehicles. Furthermore, there is a segregated footway / cycleway along the length of the northern side of Elizabeth Way that would remove the need for pedestrians to cross any carriageways. Therefore, the proposed route unnecessarily increases the risk of collisions between crossing pedestrians and vehicles.*
- 2.3.13 The Audit recommended that the route should continue along the northern side of Elizabeth Way. Location: Elizabeth Way / Herons Wood. The design team agreed and confirmed that it was the intention that pedestrians are routed along the footway on the northern side of Elizabeth Way.
- 2.3.14 Automatic Traffic Count data (see **document NR32/2 at Tab 1**) was collected on Parndon Mill Lane north of the junction with A1169 Elizabeth Way, Harlow, Essex and showed an average 2 way daily traffic flow of 455 vehicles and 85th percentile speed of vehicles of 22.5mph where the posted speed limit is 50mph.
- 2.3.15 The proposals at E04 Pardon Mill have been discussed in 2 workshops with the local highway authority. Officers had no objections to the proposed route subject but were keen to see the new footpath link to Elizabeth Way provided



- 2.3.16 Following consideration of use of the existing route across Parndon Mill level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient, having assessed road safety issues on Elizabeth Way and traffic levels on Parndon Mill Lane, when considered in the context of the purpose and characteristics of the existing route.

## 2.4 E05 Fullers End

- 2.4.1 The crossing is located in the southern outskirts of Elsenham. The crossing is located between Robin Hood Road to the north of the railway and Tye Green Road to the south. A public footpath EX/13/29 also runs from the crossing in a south westerly direction through agricultural fields. There are residential properties to the north and east of the crossing, the nearest of which are approximately 10m to the north on Robin Hood Road. The crossing provides access between residential areas and properties north and south of the level crossing and also between public rights of way to the west and east of the level crossing.
- 2.4.2 The crossing is accessible to people with limited mobility or wheelchair users, as it has paved entrances with enough room between the bollards to accommodate most wheelchairs and mobility scooters.
- 2.4.3 A census survey carried out in July 2016 recorded a total of 401 pedestrians and 51 cyclists using the crossing over a 9 day period with maximum of 60 people and 7 cyclists using it in one day.
- 2.4.4 Of the 38 people that provided feedback during the first round of public consultation, 13 indicated that they used the crossing daily, 18 used the crossing weekly, 3 used the crossing fortnightly, 2 used it monthly and 2 rarely used the crossing.
- 2.4.5 20 people indicated that the crossing provides leisure access to the local footpath network, 10 used it for access to other local amenities, 3 used it for commuting, 3 used it to access properties and 2 people stated other reasons for use.
- 2.4.6 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on a regular basis by people to access the wider footpath network and also to access properties and services in the southern part of the village of Elsenham.
- 2.4.7 The proposed alternative route can be seen on drawing number MMD-367516-E05-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.4.8 The existing public footpath over the level crossing will be extinguished. Users of existing footpath EX/13/29 heading from the east towards Fullers End level crossing, north of the railway will be diverted south on a new 2m wide unsurfaced footpath in field margin (approximately 20m in length) to connect to a new 2m wide surfaced footpath within field margin (approximately 110m in length) between an existing underpass and the level crossing. The gradient of the path is considered to be less than the desirable maximum and suitable for all users. Footpath lighting (fold down lighting columns) is to be provided along the surfaced footpath and within the underpass. The use of fold down lighting will enable maintenance to be carried out at ground level to remove the potential for contact with overhead rail electricity lines. This new footpath will allow users to head east to connect to Robin Hood Road where users can continue north along the existing highway to connect to existing footpath EX/13/28. Alternatively, users can head south along the new footpath and cross the railway via an existing underpass where new lighting will be provided, and continue east on a new 2m wide tarmac footpath (approximately 120m in length) to connect users to Tye Green Road. This footpath on the south side of the

railway will be discussed with the Developer of the site in this area with the intention that the proposed footpath route makes use of the new footways installed as part of the development which will be suitable for all users.

2.4.9 The total additional length of the diversion route is approximately 220m, however, the origin and destination points will affect the overall diversion length for many users.

2.4.10 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA Action	Designers Response
<p>At detailed design, measures should be considered to improve pedestrian safety in the underpass, address stakeholder concerns and so that standards and DfT guidelines can be met wherever possible and practicable.</p> <p>Assessment of LIDAR data has shown that the existing gradient on the approach to and departure from the underpass itself is approximately 6-7% (subject to confirmation at detailed design), which is within the DfT's maximum gradient of 8%.</p> <p>In addition, the width of the underpass (approximately 4 metres) is in close enough to the guidelines and therefore adequately complies.</p> <p>Within the underpass, consideration should be given for the provision of handrails set at 1000mm above the walking surface on both sides. There should be a clear view from one end to the other and a good level of lighting. CCTV cameras should also be considered in underpasses to enhance security. Notices to the effect that CCTV is in operation should deter vandals and provide a measure of comfort to pedestrians.</p>	<p>The underpass is a significant structure and its internal dimensions cannot be altered. Lighting is proposed in the underpass to mitigate user concerns regarding safety and security.</p> <p>Handrails could be provided as part of the detailed design and within Order limits if detailed design indicated that the gradients are likely to cause users issues. These will require further discussion with the highway authority.</p> <p>Lighting along the full diversion route is proposed on the west of the railway and will be reviewed on the east of the railway when more detailed information regarding then development proposals are available.</p> <p>The provision of CCTV could be provided as part of the detailed design. It is suggested that the need / responsibility for such provision is discussed further with the local authority.</p>
<p>Ensure that the new footpaths that are created meet guidelines outlined in the Equalities Act 2010. Where appropriate, the new paths should have an even surface, tactile paving, dropped kerbs and wayfinding signs. The proposals states that the new paths will be 2m wide, this would help ensure equality of access is maintained for all users. Rest points could</p>	<p>Hard surfacing is proposed. Tactiles and dropped kerbs plus wayfinding would be considered at detailed design.</p> <p>It is suggested that the need / responsibility for rest points is discussed further with the local authority.</p>

be considered as part of the diversion route.	
Develop a communication strategy to ensure that local residents are kept abreast of developments, including scheduling of works, details of enhancements and improvements, and any other benefits of the scheme, particularly focussing on user safety.	NR to undertake at detailed design / implementation stage.
Review the DIA at every GRIP stage to ensure equality of access is maintained for all.	NR to undertake at detailed design / implementation stage.

- 2.4.11 The proposed surfaced route provides access for all users wishing to travel north to south (and vice versa) east between properties and amenities on both side of the railway line. The proposed diversion also maintains connectivity before public rights of way to the west and east and the level crossing as does the original route. The level crossing lies with the east west public rights of way that connect the local villages for instance Elsenham in the east to Stansted in the west. Using the level crossing it is possible to undertake a recreational walk of over 3.0km. The route is slightly longer than existing, but as it provides a surfaced, lit path for use by all users (recreational and non-recreational) it is considered acceptable.
- 2.4.12 The following options were also considered, which can be seen on the consultation summary sheet in **NR32/2 at Tab 2, page 103**:
- a. A route immediately adjacent to the railway line on the south side of the line was considered and discounted due to the lack of available land and the Network Rail land in this location was not deemed suitable for all users due to the presence of embankments.
  - b. An alternative was considered that proposed utilising the development site south of the railway but would divert using west to footpath EX/13/28 on the north side of the railway via the underpass. This alternative did not link the underpass directly to the level crossing and sought to make use of the existing public rights of way north of the railway. This alternative was discounted due to the longer length of the diversion route (approximately 550m).
- 2.4.13 It is intended to use footways in the development site south of the railway which would be confirmed once detailed design works commence and it would be appropriate for a road safety audit to be carried out of that section of the route at that stage of the project.
- 2.4.14 The proposals at E05 Fullers End have been discussed in 2 workshops with the local highway authority. Officers had no objections to the proposed route subject.
- 2.4.15 Concerns were raised during consultation about the need for lighting of the footpath and the underpass and as a result, lighting was added to the footpath on the north side of the railway and inside the underpass. It is understood that the development on the south side will be lit and this will be discussed further with the Developer.
- 2.4.16 In response to the TWAO submission a different alternative route or concept was suggested by an Objector as part of the TWAO process. This has been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (page 11)**.

- 2.4.17 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.5 E06 Elsenham Emergency Hut

- 2.5.1 The crossing is located in the northern outskirts of Elsenham. The crossing is located on footpath EX/25/32 which joins Old Mead Road, a public road, approximately 40m east of the railway, to Bedwell Road southwest of the level crossing. The land to the west of the railway comprises agricultural fields. There are a small number of residential properties immediately east of the railway on Old Mead Road, the nearest of which is within 10m of the crossing. The more densely populated residential area of Elsenham is located approximately 220m to the south.
- 2.5.2 Footpath EX/25/32 provides ongoing links to longer distance footpaths to the south and west of Bedwell Road. A longer distance footpath EX/25/12 runs to the east of the level crossing and is located approximately 190m south of the level crossing and would require road walking on Old Mead Road.
- 2.5.3 The accessibility of this site is very limited as the extremely narrow and uneven alleyway through which the crossing is reached would exclude those with limited mobility, who use a wheelchair, or are travelling with a child in a pushchair.
- 2.5.4 At present the level crossing is closed to users and no census usage data was collected.
- 2.5.5 Of the 6 people that provided feedback during the first round of public consultation, 2 indicated that they never used the crossing and 4 used it rarely. Feedback indicates that the crossing provides leisure access to the local footpath network.
- 2.5.6 Whilst there is no census data to assist with assessment of the likely level of usage of the crossing, based on the feedback from consultation and the location of the crossing, it is considered that it would be mainly be used for leisure purposes.
- 2.5.7 The proposed alternative route can be seen on drawing number MMD-367516-E06-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.5.8 Users from the east wanting to reach existing footpath EX/51/14 from Elsenham Emergency Hut Level Crossing will be diverted south along Old Mead Road to cross the railway at the existing level crossing or nearby footbridge at Elsenham Station. Users will continue west along the footways on New Road and Bedwell Road to reach footpath EX/51/14. Users will continue northeast towards the level crossing before joining a new 2m wide unsurfaced footpath in field margin (approximately 1400m in length) on the west side of the railway outside of Network Rail land heading north between the railway and the M11 to connect to existing footpath EX/51/24.
- 2.5.9 To mitigate some road walking users of footpath EX/25/15, south of the level crossing, will be diverted south and west on a new 2m wide unsurfaced footpath to cross the railway at the existing level crossing or footbridge at Elsenham Station.
- 2.5.10 Existing footpath EX/25/7 to the north of the level crossing will be extinguished. There is currently no infrastructure to facilitate the crossing of the railway at this location. In addition, footpath EX/13/22 to the south of the level crossing, will also be extinguished.
- 2.5.11 Following a scoping study, a Diversity Impact Assessment was not considered necessary at this crossing as it is closed due to safety reasons.

- 2.5.12 The additional length of the diversion is approximately 1050m but this will depend on origin and destination.
- 2.5.13 The level crossing lies with the east west public rights of way that connect the local villages (Henham/Woodend Green) in the east to Ugley Green on the west. Using the level crossing it is possible to undertake a recreational walk of over 5.5km towards Woodend Green. The proposed route provides access for pedestrians wishing to travel between public right of way EX/25/15 and the footpath network to the west of the railway as does the original route. The route is slightly shorter than existing and it is considered acceptable. The proposals maintain north south connectivity to footpath EX/51/24 and remove the road walking previously required to reach this footpath.
- 2.5.14 The following options were also considered, which can be seen on the consultation summary sheet in **NR32/2 at Tab 2, page 105**:
- a. An alternative location for the proposed north south off road footpath was considered which was located adjacent to the west side of the railway. This was not progressed in favour of relocating the footpath closer to the M11 on the desire line of the pedestrians to footpath EX/51/24.
  - b. A route north from the approximate location of the junction of Station Road / New Road, adjacent to the west side of the railway up to the level crossing was considered. This was investigated and discontinued due to the lack of available land and the potential adverse impacts of private land and business premises.
- 2.5.15 The proposed diversion involves use of the existing public footway adjacent to New Road and Old Mead Road. The footway is safe and suitably maintained at present by Essex County Council. There are suitable facilities to cross the railway (public highway or stepped footbridge) at Elsenham Station to reach footpath EX/25/15.
- 2.5.16 This proposal was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The Road Safety Audit concluded that there were no issues associated with the proposal.
- 2.5.17 The proposals at E06 Elsenham Emergency Hut have been discussed in two workshops with the local highway authority. Officers had no objections to the proposed route.
- 2.5.18 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.6 E07 Ugley Lane

- 2.6.1 E07 Ugley Lane level crossing is an accommodation user worked level crossing and is located on a private access road which connects to North Hall Road on the west and east of the railway. An electricity substation is located immediately north of the crossing on the north side of the railway. The crossing is used to by registered users to access land on either side of the railway. There is no public use of the E07 level crossing.
- 2.6.2 A 9 day census survey undertaken in July 2016 did not record any use of the level crossing.
- 2.6.3 A subsequent request, completed by questionnaire, to the private user for usage details also showed that the level crossing was not used.

- 2.6.4 The proposed alternative route can be seen on drawing number MMD-367516-E07-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.6.5 The crossing will be closed to the private user and the use of the adjacent road bridge to cross beneath the railway provides the alternative crossing point.
- 2.6.6 Following a scoping study, a DIA was not considered necessary at this crossing as there are no public rights of way over the level crossing.
- 2.6.7 The alternative public roads and bridge beneath the railway maintain access to land on either side of the railway. Access to the substation is retained via the public roads.
- 2.6.8 The proposals at E07 Ugley Lane have been discussed in two workshops with the local highway authority. Officers noted this was a private crossing and had no objections to the proposed route.
- 2.6.9 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.7 E08 Henham

- 2.7.1 The level crossing provides connectivity between the wider network of lengthy public rights of the way in the area to the east and west of the railway. The level crossing is on footpath EX/55/26 which runs in an easterly direction from North Hall Road, approximately 50m west of the railway, across the railway and continues east along the southern boundary of an area designated as ancient woodland. The surrounding area is predominantly agricultural, with a small number of properties along North Hall Road. The nearest is approximately 15m to the west. The M11 is approximately 160m to the west.
- 2.7.2 The accessibility of this crossing is limited by the use of stiles, steps and narrow pathways, which reduces the ability of those with limited mobility or wheelchair users to access the crossing. The grass approaches to the crossing may also worsen the accessibility of the site for those with limited mobility.
- 2.7.3 Census survey data collected in July 2016 showed a total of 4 users over the 9 day period with the busiest period being 2 users on a single day.
- 2.7.4 Of the 6 people that provided feedback during the first round of public consultation, 3 indicated that they rarely used the crossing and that 3 used it fortnightly. Feedback indicates that the crossing provides leisure access.
- 2.7.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used infrequently by a small number of people to access the wider footpath network.
- 2.7.6 The proposed alternative route can be seen on drawing number MMD-367516-E08-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.7.7 Pedestrian users of existing bridleway EX/51/21 heading east towards the railway will be diverted south via a new 2m wide unsurfaced footpath along field boundary adjacent to North Hall Road (approximately 200m in length), then east onto to the existing underbridge where users can cross the railway. Users can then continue north, on the east side of the railway to existing footpath, EX/55/26 to via a new 2m wide unsurfaced footpath along field boundary

(approximately 320m in length). Existing footpath EX/55/26 west of the level crossing will be extinguished and the existing footbridge on this footpath will be removed.

- 2.7.8 The new footpath on the west side of the railway will require a timber footbridge (less than 4m long) to cross a highway ditch where the footpath connects onto North Hall Road. The total length of the diversion route is approximately 435m, however, the origin and destination points will affect the overall diversion length for many users.
- 2.7.9 Following a scoping study, a Diversity Impact assessment was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.7.10 The level crossing lies within the east west public rights of way that connect the local villages (Little Henham/Widdington) in the east to Quendon/Rickling in the west. Using the level crossing it is possible to undertake a recreational walk of over 7.5km. The new diversion route to the south of the railway maintains links between the public rights of way on both sides of the railway. The route is longer than existing, however, as it provides leisure walking it is considered acceptable.
- 2.7.11 No alternative routes were considered however the use of road walking on North Hall Road, north of the underpass was assessed and discounted in favour of the field edge route to provide greater amenity value to the user.
- 2.7.12 The diversion route includes a short section of road walking to pass beneath of the railway and cross North Hall Road. This proposal was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. No issues were identified following the Audit.
- 2.7.13 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on North Hall Road, south of the access to North Hall Farm that showed an average 2 way daily traffic flow of 1150 vehicles and 85th percentile speed of vehicles of 48mph where the posted speed limit is 60mph. The proposals were considered acceptable when traffic levels were considered on this section of the route.
- 2.7.14 The proposals at E08 Henham have been discussed in two workshops with the local highway authority. Officers had no objections to the proposed route.
- 2.7.15 In response to the TWAO submission a different alternative route or concept was suggested by an Objector as part of the TWAO process. This has been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (page 15)**.
- 2.7.16 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.8 E09 Elephant

- 2.8.1 Elephant crossing is in the parish of Newport and is located on the east side of the village of Newport. It is traversed by public footpath EX/41/14, which runs in a north easterly direction from the High Street, approximately 100m west of the railway, and through agricultural land on the east side of the railway. The crossing provides access from the largely residential area on the west of the railway to the wider PROW network to the east.



- 2.8.2 The narrow wooden bridges on the western approach to the crossing would reduce the ability of those with limited mobility or who use a wheelchair to access the site, as would the overgrown, wooded pathways. The paths on both sides of the railway are unmade, with the one of the east being passable but with overgrown vegetation.
- 2.8.3 Historical Network Rail census data recorded 6 pedestrians per day using the crossing point, however it was not possible to collect further census data as the crossing was temporarily closed at the time of the surveys.
- 2.8.4 Of the 25 people that provided feedback during the first round of public consultation, 3 indicated that they never used the crossing, 8 rarely used it, 2 used it monthly and 12 used it fortnightly or more frequently. Feedback indicated that the crossing provides leisure access to the local footpath network.
- 2.8.5 Based on location of the crossing point, usage figures and feedback from public consultation, it was considered that the crossing provides leisure and recreational access to the local footpath network east of the level crossing for people in Newport.
- 2.8.6 The proposed alternative route can be seen on drawing number MMD-367516-E09-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.8.7 E09 Elephant level crossing will be closed to all users who will be diverted to cross the railway using the existing road bridge on Debden Road to the south of the level crossing. Footpath EX/41/14 would be extinguished to the west of the railway and for a length of approximately 50m east of the railway.
- 2.8.8 On the west side of the crossing, users would be diverted south along the existing footway on High Street to Debden Road. Users would then use the existing carriageway along Debden Road and a new 1m wide footway over the existing road bridge to cross the railway. As part of the scheme is it proposed to signalise the railway bridge and station access road. This would regulate the single flow of traffic over the bridge and create space for the new footway.
- 2.8.9 New signal heads will be positioned close to the fire station access to the west of the bridge, and adjacent to The Chestnuts cottage and just east of the station access road on the east of the bridge.
- 2.8.10 To the east of Debden Road bridge a new footpath would run in a northerly direction in field margins for a length of approximately 180m and connect to footpath EX/41/14 approximately 50m east of the level crossing. This new footpath will be 2m wide and will have a grass surface. When considering the placement of the new footpath through private land, the design team sought to locate it against the extreme western limits of the site to minimise impact on use of the site and possible future development.
- 2.8.11 The total length of the diversion route is 480m, however, the origin and destination points will affect the overall diversion length for many users. The new route to the east of the railway provides improved north south links between the footpaths to the east of the crossing and Newport Station.
- 2.8.12 As a means of introducing enhanced pedestrian facilities across the bridge, consideration was given to a more formal priority system with traffic in one direction given priority over the other direction. The proximity of the access road to the railway station, coupled with the poor visibility across the bridge makes this difficult. Therefore, the proposed traffic signal control at the Debden Road Bridge will provide stop lines and signal equipment on all three entries, these being Debden Road eastbound, Debden Road westbound and the access road from the railway station. New signal heads will be positioned close to the Fire Station access to the west of the



bridge, and adjacent to The Chestnuts cottage and just east of the station access road on the east side of the bridge.

- 2.8.13 The proposed details for the traffic signals over Debden Road bridge were submitted to and reviewed by Essex County Council highways officers, who considered that the solution would be acceptable to them.
- 2.8.14 Following a scoping study, a Diversity Impact assessment was not considered necessary at this crossing as it is currently closed.
- 2.8.15 The proposed route provides access for pedestrians wishing to travel west to east between Newport village and the footpath network to the east of the railway as does the original route. The route is slightly longer than existing, however, as it provides leisure walking it is considered acceptable. The north south section of new footpath between Debden Road and footpath EX/41/14 provides better links to the Harcamlow Way and Saffron trail to the south.
- 2.8.16 The following options were also considered, which can be seen on the consultation summary sheet in **NR32/2 at Tab 2, page 111:**
- a. Users would be diverted further south via existing footways on High Street and Station Road on the west side of the railway, to use the existing footbridge at Newport Station to cross the railway. Users would follow the existing station access road on the east side of the track and then the proposed field margin route to the north of Debden Road to connect to footpath EX/41/14. (red route). This option was discounted as it was considered that pedestrians would most likely use the shorter route on Debden Road even if no mitigation measures were implemented to address any safety concerns. Essex County Council officers also expressed this view in discussions with them regarding the scheme.
  - b. Users would be diverted to an existing footpath underpass to the north utilising footpaths EX41/14 and EX/41/23 to the east of the railway and linking to White Horse Lane and Belmont Hill to the west. This option was discounted due to the length of the diversion compared to the other options and the need for a long footbridge if a shorter diversion was to be provided to the north. (Blue route)
- 2.8.17 The proposed route includes a section of road walking on Debden Road in Newport. This proposal was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team.
- 2.8.18 The Audit identified the following problem:
- The carriageway width over the railway bridge narrows to single carriageway with no footway or verge meaning pedestrians would have to share the carriageway with vehicles. Forward visibility of pedestrians could be restricted (particularly eastbound) and although vehicles are travelling slowly over the bridge, this could result in conflict between pedestrians and vehicles.*
- 2.8.19 The Audit recommended that remedial measures be implemented over the bridge to provide a safer environment for pedestrians, but that if this was not possible then to consider an alternative route. The introduction of traffic signals will resolve the issue of safety for pedestrians over Debden Road bridge as it will allow a footway to be provided over the road bridge.
- 2.8.20 The proposals at E09 Elephant have been discussed in 2 workshops with the local highway authority. Officers had no objections to the proposed route subject to the introduction of suitable measures over Debden Road bridge.

- 2.8.21 The traffic signal proposals have been shared with highways officers at Essex County Council, who deemed that the proposal would be a favourable and achievable solution for the public.
- 2.8.22 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on Debden road west of the bridge, that showed an average 2 way daily traffic flow of 1764 vehicles and 85th percentile speed of vehicles of 27.7mph where the posted is 30mph. The proposals were considered acceptable when traffic levels were considered on this section of the route.
- 2.8.23 In response to the TWAO submission different alternative routes or concepts were suggested by Objectors as part of the TWAO process. These have been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (pages 9 and 23)**.
- 2.8.24 Following consideration of use of the existing route across Elephant level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route, with the proposed mitigation measures implemented on Debdon Road, is suitable and convenient when considered in the context of the purpose and characteristics of the existing route

## **2.9 E10 Dixies**

- 2.9.1 The existing public footpath runs in a north easterly direction from Whiteditch Lane, approximately 280m west of the railway, to Cambridge Road, approximately 70m east of the railway. The land immediately west of the railway is occupied by school sports pitches, beyond which is a small number of residential properties and agricultural land. The level crossing is accessed via narrow, unlit pathways.
- 2.9.2 The footpath to the west of the crossing links to the wider PROW network including the long-distance routes the Saffron Trail and the Harcamlow trail. The footpath to the east of the crossing terminates at Cambridge Road with no direct links to the wider PROW network
- 2.9.3 Cambridge Road leads into Newport town centre to the south. There are a number of listed buildings on Cambridge Road, the nearest of which is approximately 170 north east of the crossing. The River Cam is approximately 160m to the east, beyond which is agricultural land.
- 2.9.4 During the nine-day survey period, which included two weekends, a total of 34 pedestrians were recorded using the level crossing with the busiest day being Monday 11th July 2016 when 9 pedestrians were recorded.
- 2.9.5 Of the 13 people that provided feedback during the first round of public consultation, 5 indicated that they rarely used the crossing, 2 never used it, 3 people used it monthly and the rest used it fortnightly or more frequently. Responses indicated that the crossing is mainly used for leisure purposes.
- 2.9.6 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on a regular basis by a relatively small number of people to access the wider footpath network that lies to the west of the school fields from properties and services in the northern part of the village of Newport. Essex County Council confirmed that the travel plan for the adjacent school discourages use of the crossing as an access point to the school for pupils.
- 2.9.7 The proposed alternative route can be seen on drawing number MMD-367516-E10-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.9.8 Footpath EX/41/7 will be extinguished for a length of approximately 120m west of the railway and for a length of approximately 70m east of the railway. From the west side of the level

crossing, users would be diverted south along the existing Footpath EX/41/4 to Bury Water Lane over a length of approximately 480m, then travel along the footway on Bury Water Lane for approximately 50m and join Footpath EX/41/22. At Gaces Acre, users would use the existing footway and travel in an easterly direction to Cambridge Road. Users can continue to walk along the footway on Cambridge Road to cross beneath the railway, or alternatively, cross Cambridge Road and walk along the carriageway on Water Lane and the footway on Bridge End and re-join Cambridge Road.

2.9.9 The total length of the diversion route is approximately 1150m, however, the origin and destination points will affect the overall diversion length for many users.

2.9.10 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA Action	Project Team Response
Discussions with the Joyce Frankland Academy should continue to be held in relation to their travel plan arrangements.	NR to undertake this action as part of consultation process going forward
Explore the merit of possible improvements to the diversion routes in partnership with the local authority such as the provision of lighting, CCTV, signage to support way finding, pedestrian rest points, and ensuring pavements are clear of obstacles such as utility poles to enhance safety and pedestrian accessibility along the proposed diversion routes.	The diversion route along the B1383 is along existing footways which are lit and maintained by ECC. The underbridge section is short with good sightlines. CCTV is not considered appropriate in this environment.  The provision of rest points within the adopted highway should be discussed further with the Highway Authority at the detailed design stage.
Develop a communication strategy to ensure that local residents are kept abreast of developments, including scheduling of works, details of enhancements and improvements, and other benefits of the scheme, including user safety.	NR to undertake this at detailed design and/or implementation stage.
Review the DIA at every GRIP stage to ensure that any changes to the design do not worsen the access and they improve where appropriate.	NR to undertake this at detailed design and/or implementation stage.

2.9.11 The proposed route links into the existing network of public rights of way, which converge within Newport Village on Bury Water Lane south of the crossing, and to existing highway footways to the south and east of the crossing on Bury Water Lane and Cambridge Road from where residential properties and services within Newport can be accessed.

2.9.12 The proposed route provides access for pedestrians wishing to travel east to west between the northern part of Newport village and the footpath network to the west of the railway as does the original route. The route will be longer than existing for some users depending on their origin and destination points and involve some walking on footways adjacent to the highway, however,

as the current route can only be accessed from Cambridge Road to the east and provides leisure walking it is considered acceptable.

- 2.9.13 The following options were also considered, which can be seen on the consultation summary sheet in **NR32/2 at Tab 2, page 113**:
- a. An alternative option was considered where users would be diverted to the south making use of the existing footways on the B1383 Cambridge Road and Bury Water Lane.
- 2.9.14 This option was discounted in favour of the proposed solution as it was acknowledged that while this option provided a more direct route, there may be potential issues with pedestrians on a narrow stretch of highway on Bury Water Lane without footways.
- 2.9.15 A Road Safety Audit was performed for E10 Dixies level crossing proposal. The Audit Team did not identify any road safety related issues associated with the scheme.
- 2.9.16 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on Water Lane east of B1383, that showed an average 2 way daily traffic flow of 75 vehicles and 85th percentile speed of vehicles of 16.1mph where the posted is 30mph. The proposals were considered acceptable when traffic levels were considered on this section of the route.
- 2.9.17 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on Bury Water Lane (opposite Joyce Frankland Academy) west of B1383 Cambridge Road, that showed an average 2 way daily traffic flow of 1341 vehicles and 85th percentile speed of vehicles of 30.3mph where the posted is 20mph. The proposals were considered acceptable and had mitigated this section by using Gages Acres.
- 2.9.18 The proposals for closure of Dixies Level Crossing have been discussed in 2 workshops with the local highway authority. Officers had no objections to the proposed route.
- 2.9.19 Following consideration of use of the existing route across Dixies level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.10 E11 Windmills

- 2.10.1 Windmills level crossing is a public footpath crossing in Newport, Essex. The crossing is located south of the village of Wendens Ambo and provides access between agricultural fields to the east and west. It is accessed via a path from Rookery Lane around 100m north of the crossing and joins the B1383 London Road approximately 200m east of the level crossing.
- 2.10.2 The surrounding area is predominantly agricultural and sparsely populated with few properties in the area, the nearest of which are Saffron House, approximately 70m to the north west and Mill Farm, approximately 120m to the north west. The River Cam is located approximately 300m to the east and the village of Audley End is approximately 400m to the north.
- 2.10.3 The approach to the level crossing is through grass fields on both sides, and the surface is unlikely to be suitable for wheelchair use. The immediate approach to the crossing is blocked off by a fence and users have to step over a stile to reach the crossing.
- 2.10.4 During the nine-day survey period, which included two weekends, a total of 17 pedestrians were recorded using the level crossing with the busiest day being Saturday 16th July 2016 when 7 pedestrians were recorded.

- 2.10.5 Of the 12 people that provided feedback during the first round of public consultation, 4 indicated that they rarely used the crossing, 2 people used it monthly and the rest used it fortnightly or more frequently. Responses indicated that the crossing is used for leisure purposes.
- 2.10.6 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on a regular basis by a relatively small number of people to access the wider footpath network that lies to the west of the railway.
- 2.10.7 The proposed alternative route can be seen on drawing number MMD-367516-E11-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.10.8 Footpath EX/41/8 will be extinguished for a length of approximately 180m west of the railway. Users would be diverted along the existing Footpath EX/41/8 and Footpath EX/52/17 to Rookery Lane, travel on Rookery Lane in an easterly direction and join Footpath EX/52/12. Users would then walk along Footpath EX/52/12 and EX/52/19, re-join Rookery Lane and cross the railway at Trees (CCTV) level crossing. Users who want to re-join Footpath EX/41/8 to the east of the railway would use a new 45m long footpath within Network Rail land and then a new 70m footpath within the field boundary. Both proposed footpaths would be 2m wide and unsurfaced.
- 2.10.9 The diversion route requires users to walk an additional length of approximately 750m, however, the origin and destination points will affect the overall diversion length for many users.
- 2.10.10 Following a scoping study, a Diversity Impact assessment was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.10.11 The proposed route links into the existing network of public rights of way by providing a north south link between on the east side of the railway that improves the link between footpaths EX/52/19 and EX/41/8. The proposed route utilises existing facilities on the west of the railway. The route is longer than existing, however, as it provides leisure walking it is considered acceptable.
- 2.10.12 The proposals that were put forward at round 1 and round 2 public consultation can be seen in **NR32/2 at Tab 2, page 115 and Tab 3, page 235** respectively. These proposals did not incorporate the new footpath link to the east side of the railway: that was deemed a benefit to users in the final design and has removed a road safety issue related to London Road.
- 2.10.13 The proposal shown at round 1 public consultation (see **NR32/2 at Tab 2, page 115**) was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team which identified the following issue;
- The issue identified is that the diversion directed pedestrians along the western verge of the B1383 London Road. Lightning columns are located within the verge which could restrict the width available, potentially causing them to enter the carriageway with a risk of conflict with vehicles. The recommendation from the Audit Team was that a suitable verge or footway width should be provided behind the lightning columns.*
- 2.10.14 The issue has been removed by the alternative diversion proposal which has removed the use of London Road.
- 2.10.15 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on Rookery Lane between the railway and B1052, that showed an average 2 way daily traffic flow of 172 vehicles and 85th percentile speed of vehicles of 26.6mph where the posted is 60mph. The proposals were considered acceptable when traffic levels were considered on this section of the route.

- 2.10.16 The proposals for closure of Windmills Level Crossing have been discussed in 2 workshops with the local highway authority. The removal of the use of London road was also an issue discussed with the local authority and assisted in removing their concerns on the previous proposals. Officers had no objections to the proposed route
- 2.10.17 As the final route was considered to be significantly different from that shown in round 2, a further information update was issued to parties including the public and statutory consultees in December 2016 and this is shown in **NR32/2 at Tab 4, page 348**. No changes were made following this exercise.
- 2.10.18 Following consideration of use of the existing route across Old Lane level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route

## 2.11 E12 Wallaces

- 2.11.1 Wallaces private footpath level crossing is located in a rural area. The level crossing is located south of Chestnut Avenue. There is little development in the immediate surrounding area and the M11 is approximately 500m west of the railway.
- 2.11.2 As Wallaces consists of a private footpath, a new census survey was not considered necessary at this location and it was agreed with Network Rail that the Private Users for this level crossing would instead be issued with a questionnaire. This questionnaire sought to capture not only the average use of the level crossing but also whether there were any times of the year when usage peaked, such as during the harvesting season for example. The Private User of Wallaces indicated that the crossing was used by an average of 4 adult pedestrians per week.
- 2.11.3 The crossing is private and not fully accessible to users. The entrance to the crossing is via a manually operated wooden gate which is concealed from view due to overgrown vegetation. The immediate approach to the crossing is in an overgrown wooded area, this is unlikely to be accessible to wheelchair users or people with pushchairs and would prove challenging for any users with a mobility difficulty.
- 2.11.4 No consultation feedback was received for the level crossing.
- 2.11.5 NR understands from other engagement with the landowners that the crossing is primarily used by beaters during the hunting season, we have considered the proposals on the conservative basis that it is used regularly by a small number of people to access private land on either side of the railway.
- 2.11.6 The proposed alternative route can be seen on drawing number MMD-367516-E12-GEN-005 in Appendix F of core document reference **NR26**.
- 2.11.7 Existing private rights over the level crossing will be extinguished. Private users would use private tracks and cross the railway via Chestnut Avenue north of the level crossing. Users on Chestnut Avenue would be able to walk along the verge under the railway and on the carriageway to the east of the railway. Alternatively, private users would be able to travel to the south via private tracks and cross the railway at the existing private overbridge.
- 2.11.8 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.

- 2.11.9 The length of the additional route to the north is approximately 500m and 1150m to the south. This will depend on user origin and destination. It is considered that the diversion route would be able to accommodate any business use of the adjacent fields.
- 2.11.10 A Stage 1 Road Safety Audit was carried out in line with HD19/15 and by an independent team remote from the option development design team and no issues were highlighted.
- 2.11.11 The proposals at E12 have been discussed in two workshops with the local highway authority who have not objected to the diversion.
- 2.11.12 The additional link to Chestnut Avenue was added to try to mitigate landowner concerns about the length of the southern diversion route.
- 2.11.13 Following consideration of use of the existing route across the level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route

## 2.12 E13 Littlebury Gate House

- 2.12.1 The level crossing is located at the western end of Peggys Walk which is a residential public road that passes through the village of Littlebury on the eastern side of the railway. On the western side of the railway, an existing public byway open to all traffic runs north to south parallel with the railway line from Strethall Road to the level crossing for a length of approximately 250m.
- 2.12.2 The approach to the level crossing from the east is via a small tarmac road behind a housing estate. To the west, there is a narrow path surrounded on both sides by high overgrown vegetation.
- 2.12.3 During a nine-day survey period, which included two weekends, a total of 135 pedestrians and 1 cyclist were recorded using the level crossing with the busiest day being Saturday 16th July 2016 when 24 pedestrians were recorded.
- 2.12.4 Of the 12 people that provided feedback during the first round of public consultation, 5 indicated that they used the crossing daily, 2 used it weekly, 3 used it fortnightly, 1 used it monthly and that 1 person rarely used it. Feedback indicates that the crossing provides leisure access to the local footpath network for 9 users, 1 person used it to access neighbouring properties, 1 person used it to access their own property and 1 person gave no response.
- 2.12.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on a regular basis by a moderate number of people for leisure purposes and a smaller number who used it to access the properties and services in the western part of the village of Littlebury.
- 2.12.6 The proposed alternative route can be seen on drawing number MMD-367516-E13-GEN-005 in Appendix F of core document reference **NR26**.
- 2.12.7 To the west of the railway the existing Byway Open to All Traffic (BOAT) EX/31/3 would be retained for approximately 90m south of Strethall Road. The remaining BOAT up to the level crossing would be downgraded to a footpath over a length of approximately 160m. At the transition point between BOAT and footpath, wooden post and three rail fencing and a wooden gate would be provided.
- 2.12.8 The footpath would then extend parallel to the railway for approximately 320m to meet Littlebury Green Road. Users would head in an easterly direction over the railway tunnel and join a



proposed in field Public Right of Way footpath to the south of Littlebury Green Road for a length of approximately 200m. This new footpath will be 2m wide and unsurfaced.

2.12.9 The additional diversion route is approximately 300m in length but this depends on the user's origin and destination.

2.12.10 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA Action	Project Team Response
Develop a detailed community and stakeholder communication strategy to ensure that all local residents are kept fully abreast of developments, including scheduling of works, details of enhancements and improvements, and other benefits of the scheme, including user safety.	NR to undertake this at detailed design and/or implementation stage.
Network Rail should consider appropriate route improvement measures along the proposed diversion, including consideration of establishing a footpath or footway along Littlebury Green Road and surfacing the proposed new paths.	Unsurfaced footpaths are present on approach to the level crossing and the proposal seeks to continue the use of unsurfaced rural public rights of way within field margins. A new field footpath has been included east of the Littlebury Road bridge to mitigate concerns. Details for the proposed footpaths will be agreed with ECC. The woodland to the west of the road bridge on Littlebury Green Road is not available for use as a public footpath and it is considered that the short section of road and verge walking is suitable at this location.
Network Rail should consult with the local council and property developers regarding the use of the existing byway to access two new residential properties.	New developments will subject to review and comment by Network Rail and Essex County Council before planning permissions are granted and this would include effects on public rights of way. NR to undertake this at detailed design and/or implementation stage.
Review this DIA at every GRIP stage	NR to undertake this at detailed design and/or implementation stage.

2.12.11 The existing public right of way across the level crossing is not closely related to the wider public rights of way in the area. The public right of way is an alternative access route from the west side of the railway to the village of Littlebury which requires road walking at present on the east side of the railway to access the village amenities. The new diversion route maintains the east / west connectivity and retains access to the village amenities via Littlebury Green Road.

2.12.12 The proposal shown at round 1 public consultation (see **NR32/2 at Tab 2, page 119**) was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. It concluded that the narrow road width on Littlebury Green Road may lead to conflict between pedestrians and vehicles. No footway or notable verge is present and this is likely to result in pedestrians walking in the carriageway. A



relatively high volume of traffic was observed on Littlebury Green Road and visibility is restricted by the highway geometry and vegetation, particularly to the west of Goodwins Close.

- 2.12.13 As a result of this audit, the final alternative proposal was modified to include a section of field edge walking to the south of Littlebury Green Road.
- 2.12.14 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on Littlebury Green Road west of Goodwins Close, Littlebury, that showed an average 2 way daily traffic flow of 483 vehicles and 85th percentile speed of vehicles of 46.4mph where the posted is 40mph. The proposals to include the field edge walking were considered appropriate when traffic speeds were considered on this section of the route.
- 2.12.15 The proposals at E13 have been discussed in two workshops with the local highway authority who have not objected to the diversion.
- 2.12.16 Gates were introduced on the west side of the railway and the Byway Open to All Traffic was downgraded to a footpath to address issues raised by the landowner during consultation.
- 2.12.17 In response to the TWAO submission different alternative routes or concepts were suggested by Objectors as part of the TWAO process. These have been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (pages 6 and 43)**.
- 2.12.18 Following consideration of use of the existing route across the level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route

## **2.13 E15 Parsonage Lane / Margaretting**

- 2.13.1 The level crossing is located on Parsonage Lane which runs south towards the railway past Parsonage Farm Cottage. Over the railway, the existing adopted road continues for approximately 110m in a south-westerly direction parallel to the railway. An existing public footpath EX/226/32 runs alongside the south side of the railway from Parsonage Lane in a north-easterly direction. The footpath then crosses beneath the railway and re-joins Parsonage Lane on the north side of the railway.
- 2.13.2 The accessibility of the crossing itself is good, with fully paved surfaces that are level and therefore accommodate wheelchair users. There are gates on either side of the crossing.
- 2.13.3 During a nine-day survey period, which included two weekends, a total of 68 pedestrians and 6 equestrians and cyclists were recorded using the level crossing with the busiest day being Monday 11th July 2016 when 10 pedestrians were recorded. A total of 20 vehicles were recorded using the crossing during the survey period. A maximum of 8 vehicles used the crossing on a single day during the survey period which was recorded occurring on Wednesday 13th July 2016.
- 2.13.4 Of the 4 people that provided feedback during the first round of public consultation, 1 indicated that they used the crossing daily, 1 used it monthly and that 2 people rarely used it. Feedback indicates that the crossing provides leisure access to the local footpath network for 3 users and 1 person used it to access their own property.
- 2.13.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used regularly by a relatively small number of people to access the wider footpath network and on a regular basis to access property.

- 2.13.6 The proposed alternative route can be seen on drawing number MMD-367516-E15-GEN-005 in Appendix F of core document reference **NR26**.
- 2.13.7 Existing Public Rights of Way over the level crossing will be extinguished. Private authorised vehicular rights would be granted over the level crossing. Pedestrian users would use the existing Footpath EX/226/32 to cross the railway via the existing underpass to the north east of the level crossing.
- 2.13.8 The additional length of the alternative diversion is approximately 130m.
- 2.13.9 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA Action	Project Team Response
Develop a detailed community and stakeholder communication strategy to ensure that all local residents are kept fully abreast of developments, including scheduling of works, details of enhancements and improvements, and other benefits of the scheme, including user safety.	NR to undertake this at detailed design and/or implementation stage.
<p>At detailed design, measures should be considered to improve pedestrian safety in the underbridge, so that standards and DfT guidelines can be met wherever possible and practicable.</p> <p>Within the underbridge, consideration should be given for the provision of handrails set at 1000mm above the walking surface on both sides. There should be a clear view from one end to the other.</p> <p>Stakeholders have claimed that CCTV has been installed at the level crossing due to the occurrence of vandalism. If this is the case such CCTV cameras could also be considered in the underbridge to improve security. Notices to the effect that CCTV is in operation should deter vandals and provide a measure of comfort to pedestrians.</p>	<p>There is an existing footpath which runs beneath the underbridge and this status would be unchanged.</p> <p>At detailed design consideration should be given to the use of the underpass to assess if safety improvements are required.</p> <p>It is considered that there is full visibility from one end of the underpass to the other. The provision of handrails can be discussed further with the highway authority. Given the short length of underpass and low usage this requirement may not be necessary.</p> <p>The reasoning and provision of any CCTV provided at the level crossing can be discussed with Network Rail at detailed design. Further pedestrian safety requirements, if any, can be discussed with the local authority.</p>
The arrangements for access to the private user crossing that will remain in operation should also be developed. This should include information about who will retain access – including residents, emergency services, and providers of other services such as refuse collection and postal services.	NR to undertake this at detailed design and/or implementation stage.
Review this DIA at every GRIP stage	NR to undertake this at detailed design and/or implementation stage.

- 2.13.10 The new diversion route maintains the connectivity for pedestrians via the use of the underpass.
- 2.13.11 The proposals at E15 have been discussed in two workshops with the local highway authority who have not objected to the diversion.

- 2.13.12 Following consideration of use of the existing route across the level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route, subject to discussions with the local authority on the issues raised by the Diversity Impact Assessment.

## **2.14 E16 Maldon Road**

- 2.14.1 The level crossing is located in Margaretting Parish near Maldon Road and about 400m south of the A12. The immediate surrounding area is predominantly agricultural.
- 2.14.2 The accessibility of this crossing is poor, with uneven access routes along areas of farmland to reach the crossing itself. These are likely to have the effect of excluding wheelchair users and others with limited mobility who would not be able to access the crossing safely. The crossing is also heavily overgrown
- 2.14.3 The level crossing was temporarily closed as a result of safety concerns. For this reason, no new usage data was collected from Maldon Road Level Crossing.
- 2.14.4 Of the 3 people that provided feedback during the first round of public consultation, 1 indicated that they never used the crossing daily, 1 used it monthly and 1 person rarely used it. Feedback indicates that the crossing is used for leisure purposes.
- 2.14.5 Whilst there is no census data to assist with assessment of the likely level of usage of the crossing, based on the feedback from consultation and the location of the crossing, it is considered that it would mainly be used for leisure purposes.
- 2.14.6 The proposed alternative route can be seen on drawing number MMD-367516-E16-GEN-005 in Appendix F of core document reference **NR26**.
- 2.14.7 Footpath EX/226/21, which is approximately 530m in length will be extinguished either side of the level crossing. Users on the south side of the railway would join Bridleway EX/226/22 at its junction with Malden Road. Approximately 40m south of Maldon Road a proposed bridleway (approximately 400m in length) in field margin would link Bridleway EX/226/22 and the existing footway to the west on Maldon Road. The proposed bridleway would be a 3m wide, unsurfaced and fenced to one side with 1.35m high concrete post and wire fencing. Users would then walk along the existing footway to cross beneath the railway.
- 2.14.8 There are no ongoing routes north of E16 and approximately 550m of existing footpath is being extinguished. In response to the loss of footpath the scheme has created approximately 400m of new bridleway. The additional length of the alternative diversion from the level crossing to EX/226/20 is approximately 50m.
- 2.14.9 Following a scoping study, although the proposed diversion route will increase walking distances, the route is more accessible than the current level crossing and it was considered that a DIA was not required.
- 2.14.10 The public right of way over the level crossing has no ongoing wider links to public rights of way to the north of the level crossing. Footpath EX/226/21 is essentially a dead end which terminates at the A12 approximately 350m north of the level crossings. There is potentially some connectivity from footpath EX/226/21 to the west, with footpaths leading to Margaretting. Likewise, there is a public right of way route for approximately 2500m to the southeast which could access the level crossing. Bridleway EX/226/44 approximately 775m to the east again has no ongoing connectivity to the north as a result of the A12.

- 2.14.11 From an assessment of the public rights of way in the area, the new diversion route directs users to the west and fulfils the purpose of providing some new links to the ongoing footpaths towards Margaretting. This provides a link to replace the original dead end.
- 2.14.12 No other options were considered. However, earlier iterations of the route shown at round 1 and round 2 public consultations (see **NR32/2 at Tab 2, page 123 and Tab 3, page 243**) included road walking for the whole length of Maldon Road.
- 2.14.13 The proposal to use the footway on the A12 was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. No issues were identified following the Audit.
- 2.14.14 However, public concerns were raised at consultation and the design was considered further. Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on Maldon Road west of Whitesbridge Farm, that showed an average 2 way daily traffic flow of 1668 vehicles and 85th percentile speed of vehicles of 39.3mph where the posted is 60mph. Although the posted speed limit is 60mph it was considered that there was an opportunity to minimise carriageway walking. Therefore the design was amended to incorporate a section of off road bridleway to accord with the existing bridleway EX/266/22. This joins to the carriageway adjacent to the existing footway on Maldon Road approximately 400m west of the level crossing which can be used by pedestrians. Equestrians will make use of Maldon Road heading west as they do at present. The proposals to include the field edge walking were considered appropriate when traffic speeds were considered on this section of the route.
- 2.14.15 The proposals at E16 have been discussed in two workshops with the local highway authority who have not objected to the diversion.
- 2.14.16 In response to the TWAO submission different alternative routes or concepts were suggested by Objectors as part of the TWAO process. These have been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (pages 4 and 17)**.
- 2.14.17 Following consideration of use of the existing route across the level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.15 E17 Boreham and E18 Noakes**

- 2.15.1 Boreham and Noakes level crossings are considered together as they share a single solution and ongoing routes to the south are considered to have been rendered inaccessible as ongoing routes due to the construction of the A12. There are no facilities for pedestrians to safely cross the crash barriers on the A12.
- 2.15.2 At E17 an existing Bridleway (EX/213/23) runs from the level crossing in a north westerly direction through existing agricultural fields. The immediate surrounding area is predominantly agricultural, with the exception of the A12. The existing bridleway route is severed by the A12. The nearest watercourse, a tributary of the River Chelmer, is located approximately 300m to the east.
- 2.15.3 The accessibility of this site is limited by the unpaved, uneven and sloping pathways through which the crossing is accessed. This terrain can have a significant impact on the ability of certain users to access the site, especially wheelchair users and people with limited mobility or visual impairments.

- 2.15.4 Boreham level crossing was temporarily closed as a result of safety concerns. For this reason, no new usage data was collected for the level crossing. 3 people that provided feedback for E17 during the first round of public consultation indicated that they never used the crossing.
- 2.15.5 At E18 an existing footpath (EX/213/24) runs from the level crossing in a northerly direction through existing agricultural fields. The immediate surrounding area is predominantly agricultural, with the exception of the A12. The existing footpath network over the level crossing is severed by the A12. The nearest watercourse, a tributary of the River Chelmer, is located 150m to the west.
- 2.15.6 From the north, the approach to the level crossing is via a gravel road through fields, which is relatively flat. To the south, there is a narrow path through woodland running parallel to both the railway and the dual carriageway. It is noted that the crossing has been out of use for many years and the onward footpath has been severed by the A12 with no crossing provision. There is also no crossing infrastructure to facilitate crossing at this location.
- 2.15.7 Noakes level crossing was temporarily closed as a result of safety concerns. For this reason, no new usage data was collected for the level crossing. 3 people that provided feedback on E18 during the first round of public consultation indicated that they never used the crossing.
- 2.15.8 Whilst there is no census data to assist with assessment of the likely level of usage of the crossing, based on the feedback from consultation and the location of the crossings, it is considered that they would mainly be used for leisure purposes.
- 2.15.9 The proposed alternative routes can be seen on drawing number MMD-367516-E17-GEN-005 and MMD-367516-E18-GEN-005 in Appendix F of core document **NR26**.
- 2.15.10 No diversion route over the railway has been proposed, due to severance caused by the A12. Instead a circular bridleway route is proposed. A proposed bridleway, approximately 550m in length would be formed between existing bridleway EX/213/23 and existing footpath EX/213/24. This proposed Bridleway would be 3m wide and unsurfaced. A concrete culvert is required along the proposed bridleway to enable users to cross a watercourse. North of where the proposed bridleway meets Footpath EX/213/24, Footpath EX/213/24 would be upgraded to a bridleway. Bridleway EX/213/23 leading to the north side of the level crossing will be partly extinguished. Footpath EX/213/24 leading to the north side of the E18 level crossing will be partly extinguished.
- 2.15.11 In response to the loss of footpath the scheme has created approximately 600m of new bridleway. The additional length of the alternative diversion is approximately 530m.
- 2.15.12 It is noted that the A12 has severed the north-south connectivity in this area which has been discussed with Essex County Council. There are no ongoing safe crossing provisions of the A12 to access north and south sides of the dual carriageway for users. ECC recognised that the loss of connectivity had resulted due to the A12 and suggested that to mitigate the loss of the connectivity, the proposal at these crossings should seek to create a circular path. This was incorporated into the design.
- 2.15.13 The proposed bridleway is partially in a flood zone 2 and 3. It is noted that access to the level crossings E17 and E18 is made via existing public rights of way that also lie within these flood zones with the existing effects on users. The proposed footpath would mirror existing use of the public rights of way in the area.
- 2.15.14 It is noted that a Public Right of Way (PRoW) is a route that anyone has a legal right to use on foot (or by certain modes of transport), they are, however, not considered Essential Infrastructure when considering flood risk. Only Essential Infrastructure (such as major

evacuation routes) are required to kept safe and accessible during times of flood. PROWs are legally required be kept free from obstructions, however, this does not extend to a natural obstruction such as a flood. If the path becomes blocked by a natural obstruction (e.g. during a time of flood) then the user does not have the right to deviate around the natural obstruction and is advised to retrace their steps and contact their local Countryside Access Team.

- 2.15.15 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing routes.
- 2.15.16 The pre-feasibility option provided by Network Rail which was considered initially was to close the public rights of way north of the level crossing without the provision of a connecting bridleway. A new bridleway west of E17 was under consideration to allow users to use the bridge on Generals Lane. This was not taken forward due to the lack on ongoing routes to the south of the A12.
- 2.15.17 The proposals at E17 and E18 have been discussed in two workshops with the local highway authority who have not objected to the diversion.
- 2.15.18 It was noted that Network Rail were aware that Essex County Council Countryside Officers had indicating that a new pond is being created (Beaulieu Park) in the land between the two level crossing north of the railway. The proposed route was considered to be the most sympathetic alignment to the accord with the proposed location of the pond.
- 2.15.19 Following consideration of use of the existing route across the level crossings and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.16 E19 Potters**

- 2.16.1 Existing footpath EX/105/43 runs in a south easterly direction crossing the railway at Potters level crossing where it continues as footpath EX/105/45. The area surrounding the level crossing comprises agricultural land. The nearest properties to the crossing are in the village of Rivenhall End, located to the south west. A tributary of the River Blackwater is located south of the crossing.
- 2.16.2 Users wishing to access this crossing must enter through a narrow gate and walk up a step set of steps, which eventually leads to a tarmacked pathway. This is likely to pose access issues for certain groups such as those with impairments and wheelchair users. In addition the approach to the crossing itself may limit the same user groups as they have to negotiate a heavy set of wooden pedestrian gates.
- 2.16.3 During a nine-day survey period, which included two weekends, a total of 78 pedestrians were recorded using the level crossing with the busiest day being Sunday 10th July when 22 pedestrians were recorded.
- 2.16.4 Of the 10 people that provided feedback during the first round of public consultation, 2 indicated that they used the crossing daily, 1 used it weekly, 3 used it monthly, 3 people rarely used it and 1 person never used it. Feedback indicates that the crossing provides leisure access to the local footpath network for 8 users, 2 gave no response on purpose of use.
- 2.16.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on a regular basis by a relatively small number of people to access the wider footpath network.

- 2.16.6 The proposed alternative route can be seen on drawing number MMD-367516-E19-GEN-005 in Appendix F of core document reference **NR26**.
- 2.16.7 On the north side of the railway, users heading south on existing footpath EX/105/43 would be diverted west via a proposed footpath, within field margins to connect to footpath EX/105/48. Users will continue south along footpath EX/105/48 towards the railway and onto on Oak Road. Users can then use the existing underpass to cross the railway and connect onto existing Footpath EX/105/47. Footpath EX/105/43 approaching the level crossing on the north side of the railway will be extinguished.
- 2.16.8 The additional length of the alternative diversion is approximately 820m but this depends on user origin and destinations.
- 2.16.9 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.16.10 Ongoing routes to the south are considered to have been rendered inaccessible as ongoing routes due to the construction of the A12. There are no facilities for pedestrians to safely cross the crash barriers on the A12.
- 2.16.11 Public rights of way to the north (and east) and to the west using the level crossing are over 2000m in length and include short sections of road walking for some routes.
- 2.16.12 The new diversion route retains the connectivity over the railway via the longer diversion suitable for leisure use.
- 2.16.13 Initially a pre-feasibility option was considered to provide a footpath link on the north side of the railway to E20 Snivellers level crossing but this was not progressed due to the availability of the bridge on Cranes Lane to the east of Snivellers level crossing.
- 2.16.14 An alternative was considered at round 1 consultation that provided a footpath link along the railway on the north side which can be seen in **NR32/2 at Tab 2, page 129**.
- 2.16.15 The proposals at E19 have been discussed in two workshops with the local highway authority who have not objected to the diversion.
- 2.16.16 Following round 1 consultation the proposed footpath link from footpath EX/105/487 to EX/105/43 was amended to lie outside of a local woodland to avoid any adverse effects on vegetation and trees.
- 2.16.17 In response to the TWAO submission a different alternative route or concept was suggested by an Objector as part of the TWAO process. This has been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (page 44)**.
- 2.16.18 Following consideration of use of the existing route across the level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.17 E20 Snivellers

- 2.17.1 Bridleway EX/92/34 runs in a south westerly direction crossing the railway at Snivellers level crossing, where it joins Snivellers Lane (track) south of the railway. The area surrounding the crossing comprises agricultural land. The nearest property is Clarks Farm, north east of the level crossing.



- 2.17.2 Ongoing routes to the south from Snivellers Lane are considered to have been rendered inaccessible due to the construction of the A12. There are no facilities for pedestrians to safely cross the crash barriers on the A12.
- 2.17.3 A nine-day survey period, which included two weekends, a total of 8 pedestrians were recorded using the level crossing with the busiest day being Sunday 17th July when 4 pedestrians were recorded.
- 2.17.4 The accessibility of this site is limited by the poor accessibility of the access routes which are unpaved and uneven. This will likely cause wheelchair users and many people with limited mobility to be unable to access the crossing. In addition to this, the crossing is not flat so requires users to climb up to the line in order to cross it. There is also no distinct pathway on the north side of the crossing, meaning users have to walk through fields to reach where they are going.
- 2.17.5 Of the 6 people that provided feedback during the first round of public consultation, 2 used it weekly, 1 used it monthly and that 3 people rarely used it. Feedback indicates that the crossing provides leisure access to the local footpath network for 6 users.
- 2.17.6 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used regularly by a small number of people to access the wider footpath network.
- 2.17.7 The proposed alternative route can be seen on drawing number MMD-367516-E20-GEN-005 in Appendix F of core document reference **NR26**.
- 2.17.8 Users of bridleway EX/92/34 approaching Snivellers level crossing on the north side of the railway will be diverted north east onto a proposed bridleway, which connects to Cranes Lane. The proposed bridleway would be 3m wide, unsurfaced and run within field margin parallel to the railway. Users can then walk along Cranes Lane to cross the railway via the existing overbridge. A cycleway is provided along the A12 to return to Snivellers Lane (track). The route creates a circular bridleway to remove a dead end to the level crossing and retain bridleway amenity in the area.
- 2.17.9 The additional length of the alternative diversion is approximately 1250m but this depends on user origin and destinations.
- 2.17.10 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.17.11 Footpath EX/92/27 and EX/92/32 which are closest to the south side of the level crossing have been severed from the northern public rights of way due to the A12. Therefore, it is considered that the ongoing routes to the south of the A12 lie to the east and south east of the level crossing and are reached via footpath EX/246/19. The circular walk will be available for those users wishing to use the amenity for leisure purposes and these users wishing to use Cranes Lane north of the railway will have a reduced diversion length.
- 2.17.12 It is noted that Kelvedon Parish Council Circular Walk 3 and 4 utilise parts of the infrastructure associated with the level crossing closure. It is acknowledged that Circular Walk 3 would require amendment to use either the new public right of way or to make use of Cranes Lane. The circular nature of the walk would be retained. It is noted that guidance for users of the walk gives the following advice to users at the E20 level crossing 'Being careful to observe the notice to STOP LOOK LISTEN, cross the very busy line'. The safety issues meriting warning to users would be removed with the closure of the level crossing. Circular walk 4 is unaffected by the proposals to close E20 level crossing.

- 2.17.13 The circular walk will be available for those users wishing to use the amenity for leisure purposes and these users wishing to use Cranes Lane north of the railway will have a reduced diversion length.
- 2.17.14 The pre-feasibility option was to create a footpath link to E19 but this was not taken forward in favour of the use of the bridge crossing on Cranes Lane to the east of the level crossing.
- 2.17.15 An alternative proposal to provide bridleway facilities was shown at round 1 which can be seen as the blue route in **NR32/2 at Tab 2, page 131**. This was discounted on the grounds that the circular route does not connect to E20 Snivellers level crossing and forms a dead-end at the railway.
- 2.17.16 The proposal to use the footway on the A12 was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. No issues were identified following the Audit.
- 2.17.17 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on Cranes Lane south of the railway, which showed an average 2 way daily traffic flow of 51 vehicles and 85th percentile speed of vehicles of 25.4mph where the posted is 60mph. The proposals were considered appropriate when the traffic data was considered on this section of the route.
- 2.17.18 The proposals at E20 have been discussed in two workshops with the local highway authority who have not objected to the diversion.
- 2.17.19 The use of Cranes Lane road bridge was discussed with the local authority following round 1 consultation. The associated proposal is shown in **NR32/2 at Tab 2, page 131**. As a result it was agreed that there was a loss of amenity for bridleway users and that the local authority would be seeking for the scheme to add a circular route. The resulting option was developed and shown on the round 2 consultation plans which are shown in **NR32/2 at Tab 3 page 251**. Further consultation suggested that the landowner had concerns regarding the round 2 route in terms of security and refinements to the proposal was made following round 2 consultation. The route was altered to lie alongside the railway to provide more direct connectivity with Cranes Lane bridge and address landowner concerns. It was considered necessary that the route was sufficiently different to merit a further round of information updates to be issued to parties including statutory consultees and local residents. This proposal can be seen in **NR32/2 at Tab 4 page 350**. No further amendments were made and this route was taken forward to the TWAO submission.
- 2.17.20 Following consideration of use of the existing route across the level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.18 E21 Hill House 1

- 2.18.1 The level crossing provides connectivity between the wider network of public rights of the way in the area to the north and south of the railway. The ongoing public rights of way are some distance from the level crossing / affected footpaths and are accessed via the rural road network.
- 2.18.2 The level crossing is on footpath EX/78/7 which runs in a south easterly direction from Little Tey Road, approximately 400m northwest of the railway, across the railway and continues south through private farm buildings and access roads to the A12 London Road. The surrounding

area north of the railway line is predominantly agricultural and there is a farm business south of the railway line.

- 2.18.3 The approach to the crossing is via an unmarked grass path; accessing the crossing itself involves stepping over a stile. The crossing is therefore considered to be unsuitable for wheelchair or pushchair users and may present some challenges to any users with mobility difficulties.
- 2.18.4 A census count undertaken in July 2016 for a nine-day period, between 6th and 14th September was assessed to provide good quality data, and as a result no new census surveys were commissioned. During the nine-day survey period, no users were recorded at this level crossing.
- 2.18.5 Of the 4 people that provided feedback during the first round of public consultation, 2 indicated that they never used the crossing and 2 used it rarely. Feedback indicates that the crossing provides leisure use for 2 users who stated a reason.
- 2.18.6 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used infrequently by a small number of people to access the wider footpath network.
- 2.18.7 The proposed alternative route can be seen on drawing number MMD-367516-E21-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.18.8 Users of existing footpath EX/78/7 heading south towards Hill House 1 level crossing will be diverted east via a new 2m wide unsurfaced footpath along field boundary (approximately 170m in length), parallel to the railway, to connect to existing Byway Open to all Traffic EX/78/5. Users can then cross the railway at the existing Hill House 2 footpath level crossing which will remain open. South of Hill House 1 level crossing, footpath EX/78/7 will be extinguished to prevent the creation of a dead end.
- 2.18.9 The total additional length of the diversion route is approximately 225m, however, the origin and destination points will affect the overall diversion length for many users. The new route to the east of the level crossing, and the use of Hill House 2 level crossing, maintains north south links over the railway.
- 2.18.10 Following a scoping study, a Diversity Impact assessment was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.18.11 The existing public rights of way in the vicinity of the level crossing are considered to be a widely distributed series of relatively short sections of rights of way which are reached through the use of the rural roads. The A12 separates the rights of way in the area.
- 2.18.12 The alternative route is an extension to the footpath and of the same character to the wider network. The new diversion route to the south of the railway maintains links between the public rights of way on both sides of the railway. The route is longer than existing, however, as it provides leisure walking it is considered acceptable.
- 2.18.13 An alternative was considered which proposed that the entire length of footpath EX/78/7 was extinguished and that users would divert to Byway EX/78/5 to the east (via Little Tey Road) and thence across the railway at Hill House 2 level crossing. This is shown in **NR32/2 at Tab 2, page 133**.

- 2.18.14 The proposals at E21 have been discussed in 2 workshops with the local highway authority. The route was amended to create a circular route and retain public rights of way assets as described above, in response to ECC's requirements which emerged from those discussions.
- 2.18.15 In response to the TWAO submission a different alternative route or concept was suggested by an Objector as part of the TWAO process. This has been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (page 12)**.
- 2.18.16 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.19 E22 Great Domsey**

- 2.19.1 The level crossing provides connectivity between the wider network of public rights of the way in the area to the north and south of the railway. The ongoing public rights of way are some distance from the level crossing / affected footpaths and are accessed via the rural road network.
- 2.19.2 The level crossing is on footpath EX/78/3 which runs in a south easterly direction from Little Tey Road, approximately 500m northwest of the railway, across the railway and continues south to the A12 London Road. The surrounding area north and south of the railway line is predominantly agricultural and there is a farm north of the railway line.
- 2.19.3 Accessing the crossing involves walking down steps on one side; the other side of the crossing is uneven and gravelled. The crossing is therefore unsuitable for wheelchair or pushchair users and may present some challenges to any users with mobility difficulties.
- 2.19.4 The need for new data was identified at Great Domsey and a nine-day census survey to be in accordance with Network Rail Standard GRD007 was subsequently commissioned to take place between the 9th and 17th of July 2016. During the nine-day survey period, no users were recorded at this level crossing.
- 2.19.5 Of the 4 people that provided feedback during the first round of public consultation, 1 person indicated that they never used the crossing, 2 used it rarely and 1 person used it weekly. Feedback indicates that the crossing provides leisure access use.
- 2.19.6 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used infrequently by a small number of people to access the wider footpath network.
- 2.19.7 The proposed alternative route can be seen on drawing number MMD-367516-E22-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.19.8 Users of existing footpath EX/78/3 heading south towards Great Domsey level crossing will be diverted via a new 2m wide unsurfaced footpath along field boundary (approximately 170m in length running parallel to the railway, to connect to Domsey Chase. Users can then continue south on Domsey Chase via an existing bridge to connect to the A12 London Road.
- 2.19.9 Footpath EX/78/3 south of the railway will be extinguished to prevent the creation of a dead end.
- 2.19.10 The total length of the diversion route is approximately 450m, however, the origin and destination points will affect the overall diversion length for many users. The new route to the

east of the level crossing, and the use of Hill House 2 level crossing, maintains north south links over the railway.

- 2.19.11 Following a scoping study, a Diversity Impact assessment was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.19.12 The existing public rights of way in the vicinity of the level crossing are considered to be a widely distributed series of relatively short sections of rights of way which are reached through the use of the rural roads. The A12 separates the rights of way in the area. The alternative route is an extension to the footpath and of the same character to the wider network. The new diversion route to the south of the railway maintains links between the public rights of way on both sides of the railway. The route is longer than existing, however, as it provides leisure walking it is considered acceptable.
- 2.19.13 An alternative was considered which proposed that the entire length of footpath EX/78/3 was extinguished and that users would divert to Byway EX/78/5 to the east (via Little Tey Road) and thence across the railway at Hill House 2 level crossing. This alternative would use the existing footway along the A12 to return to the southern end of footpath EX/78/3. This is shown in **NR32/2 at Tab 2, page 135.**
- 2.19.14 Following discussions with Essex County Council this was discounted in favour of the TWAO solution reduce the length of road walking for some users.
- 2.19.15 The proposal to use the footway on the A12 was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. No issues were identified following the Audit.
- 2.19.16 The use of Domsey Chase private road and bridge is considered to be an acceptable rural route, the type of combination of private farm track and public right of way is found elsewhere within the County.
- 2.19.17 The proposals at E21 have been discussed in 2 workshops with the local highway authority. The route was amended as described above.
- 2.19.18 A suggestion from public consultation to create a short link on the north side of the railway line to connect north east to Domsey Bridge & Domsey Chase (private road) was also incorporated into the final design.
- 2.19.19 One suggestion was received at consultation to create a short link on the north side of the railway line to connect with Hill House 2 crossing & Feering public byway 5. This was not progressed as it was considered the route would use more private land than the final design option.
- 2.19.20 In response to the TWAO submission a different alternative route or concept was suggested by an Objector as part of the TWAO process. This has been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (page 14).**
- 2.19.21 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.20 **E23 Long Green**

- 2.20.1 The level crossing is currently closed to users and has physically been replaced by a new accessible footbridge. The crossing is located at the western end of Dobbies Lane, which runs

in north west direction from the A12, a dual carriageway approximately 300m to the south east, and joins Long Green and Jays Lane at a T-junction immediately west of the railway. This is the south-east edge of Long Green village with the land on the western side of the railway occupied by residential housing where the nearest properties are approximately 30m from the crossing.

- 2.20.2 The proposed alternative route can be seen on drawing number MMD-367516-E23-GEN-005, which can be found in Appendix F of core document reference **NR26**.
- 2.20.3 The proposals involve legally dedicating the replacement accessible footbridge as the definitive public right of way.
- 2.20.4 The proposals do not alter the wider PROW network.
- 2.20.5 The proposals at E23 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposal.
- 2.20.6 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.21 E25 Church 2

- 2.21.1 The level crossing is on footpath EX/149/29 which runs in a north/south direction from London Road in the village of Copford (via footpath EX/128/1) south of the railway to footpath EX/132/11, approximately 650m north of the railway and onwards to Chippetts Lane to the north. The surrounding area north of the railway line is predominantly agricultural.
- 2.21.2 The level crossing is currently closed to users. Footpath EX/149/29 is not currently present on site and there is no route across the A12 south of the level crossing and therefore the purpose of the level crossing is greatly diminished. The level crossing would have historically provided a link from Copford south of the railway to the wider public right of way network north of the railway.
- 2.21.3 Accessing the crossing involves walking up steps on both sides and traversing areas of dense woodland. The crossing is therefore unsuitable for wheelchair or pushchair users and may present some challenges to any users with mobility difficulties.
- 2.21.4 Since the level crossing is closed no usage data was obtained.
- 2.21.5 Of the 4 people that provided feedback during the first round of public consultation, 2 indicated that they never used the crossing, 1 person rarely used the crossing and 1 person stated that they used it daily.
- 2.21.6 1 person indicated that the level crossing was used for leisure, 1 person indicated this was used for commuting and 2 did not state a usage. It is unclear whether the users were referring to the currently signposted routes to Turkey Cock Lane as there are no ongoing routes across the A12 via the level crossing.
- 2.21.7 Whilst there is no census data to assist with assessment of the likely level of usage of the crossing, based on the feedback from consultation and the location of the crossing, it is considered that it would be mainly be used for leisure purposes by a small number of people to access the wider footpath network and as a route to work.
- 2.21.8 The proposed alternative route can be seen on drawing number MMD-367516-E25-GEN-005, which can be found in Appendix F of core document **NR26**.

- 2.21.9 Users of footpath EX/128/1 heading north towards Church 2 level crossing will be diverted east on a new 2m wide unsurfaced footpath (approximately 400m in length) within a wooded area to connect to Turkey Cock Lane. This path is already signposted as the alternative route by Essex County Council.
- 2.21.10 Users will continue north over the railway using the existing underbridge via both carriageway and verge way walking. Users can the continue north on Turkey Cock Lane to connect to existing footpath EX/132/23.
- 2.21.11 Footpath EX/132/11 north of Church 2 crossing will be extinguished up to footpath EX132/23 and footpath EX/149/29 south of the level crossing will also be extinguished.
- 2.21.12 The total length of the diversion route is approximately 530m, however, the origin and destination points will affect the overall diversion length for many users. The new route to the east of the level crossing maintains north south links over the railway.
- 2.21.13 Following a scoping study, a Diversity Impact assessment was not considered necessary at this crossing as the route is severed by the A12 and there is potential for improved accessibility.
- 2.21.14 The proposed route utilises the currently signposted route for uses to cross the railway and the A12 and it is recognised by Essex County Council that footpath EX/149/29 does not exist on site. It is considered that the works will formalise the current situation on site.
- 2.21.15 An alternative was considered that did not have the proposed footpath link south of the railway and would divert users along London Road and Turkey Cock Lane south of the railway. This is shown in **NR32/2 at Tab 2, page 139**. This was not taken forward as it was considered the final design offered less road walking and utilised the existing permissive footpath link.
- 2.21.16 The diversion route is considered to have available verges akin to rural road use in the vicinity of the level crossing. Publicly available accident data shows that there have been no pedestrian casualties on Turkey Cock Lane from 1999-2016.
- 2.21.17 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. No issues were identified following the Audit.
- 2.21.18 Automatic Traffic Count data (see Document NR32/2 at Tab 1) was collected on Turkey Cock Lane south of 12 bridge, which showed an average 2 way daily traffic flow of 1209 vehicles and 85th percentile speed of vehicles of 39.2mph where the posted is 60mph. The proposals were considered appropriate when the traffic data was considered on this section of the route.
- 2.21.19 The proposals at E25 have been discussed in 2 workshops with the local highway authority who supported the closure and diversion.
- 2.21.20 Round 1 consultation highlighted concerns with the length of road walking and noted the permissive path was on site. Therefore the scheme was amended, as can now be seen on the Design Freeze Plans submitted with the TWAO.
- 2.21.21 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.



## 2.22 E26 Barbara Close

- 2.22.1 The level crossing lies on footpath EX/285/18 and is situated on the west side of the town of Rochford. The surrounding area to the west of the railway line is predominantly agricultural. Residential properties border the railway and level crossing to the east and farm buildings lie immediately to the west of the level crossing.
- 2.22.2 There is no formal path to the level crossing on either side of the railway. The approach from the western side is via private property through Meadowbrook Farm. Access from Barbara Close is through a narrow unsurfaced alley way between two residential properties. The crossing itself has level crossing furniture across the tracks to enable people to walk across more safely. However, the approach to the crossing is through a sloped set of narrow gates.
- 2.22.3 A census survey carried out in July 2016 recorded a total of 97 pedestrians using the crossing over a 9 day period with maximum of 26 people using it in one day.
- 2.22.4 Of the 8 people that provided feedback during the first round of public consultation, 3 indicated that they never used the crossing, 3 used it rarely and 2 used it daily. Feedback indicates that the crossing provides leisure access to the local footpath network.
- 2.22.5 Of the 5 people who stated a purpose for using the level crossing, 3 stated they used it for leisure purposes, 1 used it to access their own property and 1 used it for commuting.
- 2.22.6 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used regularly by a moderate number of people to access the wider footpath network with a more frequent daily basis for a smaller number of people for work and for property access on the west side of the railway.
- 2.22.7 E26 Barbara Close level crossing will be closed to all users, who will be diverted to cross the railway via the underbridge on Ironwell Lane that is situated approximately 210m to the south. Ironwell Lane is a designated byway open to all traffic (BOAT EX/285/11).
- 2.22.8 Users of existing footpath EX/285/21 heading east towards Barbara Close level crossing will be diverted south, continuing along existing footpath EX/285/21 to connect to Ironwell Lane, BOAT EX/285/11. Users will continue east along Ironwell Lane to the existing underbridge where a new 1.5m wide asphalt footway will be installed to address some reported flooding issues in the underpass. Users will then continue east along Ironwell Lane on BOAT EX/285/11 before heading north using the existing footways on Ashingdon Road, Roche Avenue and Barbara Close. The existing footpath EX/285/18 will be extinguished in its entirety. However, adjacent landowners will retain rights along the former PROW to access their property.
- 2.22.9 The total length of the diversion route is 700m, however, the origin and destination points will affect the overall diversion length for many users.
- 2.22.10 Following a scoping study, a Diversity Impact assessment was not considered necessary at this crossing due to the current restricted accessibility (notably the presence of narrow gates, overgrown vegetation and a sloped approach), of the existing crossing route.
- 2.22.11 The proposed route provides access for pedestrians wishing to travel east to west between residential development and services in Rochford and the footpath network to the west of the railway as does the original route. Depending on the origin and destination points, the route is slightly longer than existing, however, as it provides leisure walking it is considered acceptable.

- 2.22.12 The proposed route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The Audit did not identify any potential safety problems with the proposal.
- 2.22.13 The proposals at E26 Barbara Close have been discussed in 2 workshops with the local highway authority. Officers had no objections to the proposed route.
- 2.22.14 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.23 E28 Whipps Farmers

- 2.23.1 The level crossing provides connectivity between the wider network of public rights of the way in the area to the north and south of the railway. The ongoing public rights of way to the south are accessed via the rural road network. The crossing is also a private user accommodation crossing and provides access to a small plot of farm land south of the railway which is not currently accessible without using the level crossing.
- 2.23.2 The level crossing lies on the border of the county of Essex and the London Borough of Havering. It lies on footpath EX/272/178 which joins Church Lane to the north and St Marys Lane in the south via Havering FP179. The surrounding area to the west of the railway line is predominantly agricultural. There is an industrial estate 150m north of the level crossing.
- 2.23.3 On both sides the approach to the crossing is via agricultural fields. On the immediate approach to the crossing there is a fence stile and a wide metal gate. The stile is likely to be unmanageable by people with mobility difficulties. People with mobility difficulties may also find opening the metal gate challenging without assistance.
- 2.23.4 During a nine-day census survey period, no users were recorded at this level crossing.
- 2.23.5 Of the 3 people that provided feedback during the first round of public consultation, 2 indicated that they used it rarely and 1 person indicated that they used it monthly. Feedback indicates that the crossing provides leisure use. Leisure use was cited as the purpose to use the level crossing by 2 people who provide an answer.
- 2.23.6 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used infrequently by a small number of people to access the wider footpath network.
- 2.23.7 The proposed alternative route can be seen on drawing number MMD-367516-E28-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.23.8 Users of existing footpath EX/272/178 heading south towards Whipps Farmers level crossing will be diverted west via a new 2m wide unsurfaced footpath along field boundary (approximately 270m in length) within field margin, along the boundary of Upminster Trading Park to the B186. At this point users will cross the B186 via a new pedestrian crossing point where they will be diverted south via new 2m wide unsurfaced footpath along field boundary (approximately 195m in length) towards the railway. Users will then continue west, parallel to the railway along new 2m wide unsurfaced footpath along field boundary (approximately 245m in length) to existing bridleway EX/272/183. Users can continue to use Puddle Dock level crossing, which is to remain open to users, to cross the railway. This is located approximately 250m west of Whipps Farmers level crossing. Users approaching the crossing from the south will utilise the existing facilities, which include the highway verge and existing footway, on St

Mary's Lane and Warley Street to access footpath FP177 and Puddle Dock level crossing to the west. North of the railway, footpath EX/272/178 approaching the level crossing will be extinguished and footpath EX/272/178 to the south of the railway will be extinguished.

- 2.23.9 To enable the extinguishment of the accommodation rights, a 3.5m wide crushed concrete access track is proposed from St Marys Lane, south of the railway to provide private land access.
- 2.23.10 The total length of the footpath diversion route is approximately 1800m, however, the origin and destination points will affect the overall diversion length for many users. The new route to the west of the level crossing maintains north south links over the railway and the length of this diversion route is shorter than the full diversion.
- 2.23.11 Following a scoping study, a Diversity Impact assessment was not considered necessary at this crossing due to the low usage of the level crossing.
- 2.23.12 The footpaths in the area are rural routes, considered to be used for recreational walking purposes. The length of the diversion varies for users, depending on origin and destination. It is noted that users undertake a recreation walk of over 2000m in using the existing footpaths north and south of E28 level crossing at present. To continue south from St Marys Lane a recreational walker using public rights of way south of FP194 would have a walk of approximately 2600m (on public rights of way only) to reach Fen Lane. Further walking would be required on private tracks. The north/south connectivity is feasible by an approximate total of public right of way walking in the order of 4500m utilising E28 level crossing (via St Marys Lane)
- 2.23.13 Reference has been made by users of the footpath network to north/south connectivity. From an inspection of the Havering public rights of way plans it can be seen that existing north/south existing connectivity for on going public rights of way is currently provided by footpath 194 just south of Waverley Street at the junction with St Marys Lane (approx 575 SSW of E28 level crossing) as noted above.
- 2.23.14 To reach footpath 194 via the diversion route would introduce an additional walking distance for the north/south connectivity of approximately 520m. It has been noted that the existing length of north south connected footpaths is of the order of 4500m at the moment.
- 2.23.15 It is reasonable to consider that users of footpath 178 would experience the following, additional, changes to the distance of their journeys as a result of the diversions:
- a. To reach the footpath FP179 south of the level crossing at St Marys Lane there would be an additional length of approximately 1800m
  - b. To reach Puddle Dock level crossing the walking distance would be reduced by approximately 1500m
  - c. To reach the footpath FP177 south of the Puddle Dock level crossing at St Marys Lane the walking distance would be reduced by approximately 400m
- 2.23.16 It is acknowledged that there is a longer distance of approximately 520m to walk north/south, but that the connectivity is retained.
- 2.23.17 Depending on the origin and destination points, the route is longer than existing, however, as it provides leisure walking it is considered acceptable.
- 2.23.18 The proposals also maintain private access to land to the south of the railway.

- 2.23.19 During the option considerations for the E28 level crossing several alternatives were considered. These alternatives included the closure of E27 Puddle Dock level crossing (which lies approximately 250m west of E28) as part of the combined closure options.
- 2.23.20 Three options were considered during the design feasibility study leading to the TWAO submission.
- 2.23.21 The initial solution proposed to divert pedestrians west on a new footpath which would be along the north side of the railway up to Network Rail Overline Bridge FSS2 44 on the B186 Warley Street.
- 2.23.22 Safety concerns were raised regarding the absence of footway provision on the B186 Warley Street on the overline bridge. The risk to pedestrians is then exacerbated when combined with reduced forward visibility over the crest of the bridge, high vehicle speeds and high volume of traffic. A Road Safety Audit was carried out on the use of the road bridge which raised significant concerns about the safe use of the carriageway by pedestrians. As a result this route was discounted.
- 2.23.23 The following options were considered which also assumed that E27 Puddle Dock was to be closed. These options are shown in **NR32/2 at Tab 2, page 143 and Tab 3, page 263**.
- 2.23.24 Western Diversion - North of the railway a new footpath would be created in field margins to link footpath EX/272/178 to EX/272/180 just north of the Business Park (via a road crossing of Warley Street), onto a link with bridleway EX/272/183 and under the M25. These footpath would lie approximately 60-130m away from the railway. Existing and new rights of way would be used to link to Brickfields footpath level crossing approximately 1900m west of the E28 level crossing. Users would return to the E28 via St Marys Lane and Warley Street south of the railway.
- 2.23.25 A variation of the above option was considered that proposed a new length of field margin footpath adjacent to St Marys Lane/Warley Street in the vicinity of Brook Farm south of the E28 level crossing.
- 2.23.26 The westerly diversion to Brickfields level crossing was removed as a consequence of consultee concerns about diversion lengths
- 2.23.27 Eastern Diversion – North of the railway a new footpath to the east would be created along the railway to cross the railway at the existing road bridge on Warley Hall Lane. This would be along the railway on the south side and north of existing ponds on the north side of the railway. This option was not taken forward to round 2 consultation due to the length of diversion for some users.
- 2.23.28 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The Road Safety Audit identified that it is proposed that pedestrians will walk along a section of St Marys Lane where no footway or notable verge is present which would result in pedestrians walking in the carriageway. A high volume of traffic was observed on St Marys Lane travelling at high speeds and visibility is restricted by the highway geometry. The RSA suggested that a new footway should be provided.
- 2.23.29 It was the conclusion of the design team that the route using St Marys Lane would be used at present by pedestrians walking between ongoing public rights of way and that the design proposals would not exacerbate this, having regard to the low levels of usage. From publicly available accident data it was noted that there were no pedestrian casualties on St Marys Lane in the period 1999-2016. The maintenance of the verges for road walking is the responsibility of the local authority.

- 2.23.30 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected B186 Warley Street between the road bridge over the railway and Upminster Trading Park, North Ockendon, which showed an average 2 way daily traffic flow of 13737 vehicles and 85th percentile speed of vehicles of 48.8mph (southbound) where the posted is 60mph.
- 2.23.31 ATC data shows that the 85% speed of the road northbound is 45mph and the associated safe stopping distance for this speed (75kph) is less than 160m. It is considered that the proposed crossing point on Warley will be located over 200m away from any obstructions to driver sightlines south of the road crossing point and will enable drivers to see users in time to brake in the event of misuse of the crossing point. The sighting distances for drivers heading south is greater than 200m.
- 2.23.32 The proposals were considered appropriate when the traffic data was considered on this section of the route.
- 2.23.33 No additional measures were incorporated into the design, which maintains the current facilities provide by the Local Authorities.
- 2.23.34 The proposals at E28 Whipps Farmers have been discussed in two workshops with the local highway authority. Officers had no objections to the final alternative diversionary route.
- 2.23.35 The westerly route was considered further and subsequently revised to amended to retain E27 to reduce the diversion distance which was taken forward to the TWAO submission. As the final route was considered to be significantly different from that shown at round 2, a further information update was issued to parties including the public and statutory consultees and this is shown in **NR32/2 at Tab 4, page 344**. No changes were made following this exercise.
- 2.23.36 In response to the TWAO submission a different alternative route or concept was suggested by an Objector as part of the TWAO process. This has been assessed further and the considerations are presented in **Document NR32/2 at Tab 7 (page 19)**.
- 2.23.37 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.24 E29 Brown & Tawse

- 2.24.1 The level crossing provides connectivity between the wider network of public rights of the way in the area to the north and south of the railway. However, the footpath was known to be obstructed within the industrial estate north of the level crossing to prevent use of the public right of way.
- 2.24.2 The level crossing lies on footpath EX/313/39 and is situated on the west side of the village of West Horndon of Rochford. The surrounding area to the south of the railway line is predominantly agricultural and an industrial estate lies immediately north of the level crossing.
- 2.24.3 The crossing is bordered by two old stiles that present a significant barrier to those with limited mobility and parents with pushchairs. Also, the corridors to the industrial estate are narrow and overgrown, further increasing the difficulty with which those with limited mobility could use the crossing.
- 2.24.4 During a nine-day census survey, no users were recorded at this level crossing. While the level crossing is open, the blocked footpath to the north through the industrial estate would prevent its usage.

- 2.24.5 Of the 5 people that provided feedback during the first round of public consultation, 1 indicated that they never used the crossing, 3 used it rarely and 1 person used it daily. Of the 3 who responded, 2 indicated that the crossing was for leisure purposes and 1 person used it to access their own property.
- 2.24.6 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on infrequently by a small number of people to access the wider footpath network with some daily use to access property.
- 2.24.7 The proposed alternative route can be seen on drawing number MMD-367516-E29-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.24.8 Users of existing Footpath 4 heading north towards Brown & Tawse level crossing will be diverted via a new 2m wide unsurfaced footpath in Network Rail land (approximately 280m in length) before connecting to Childerditch Lane via a set of wooden steps.
- 2.24.9 Users will then use the existing over bridge on Childerditch Lane heading north. Users will be diverted north onto a new 2m wide unsurfaced footpath along field boundary (approximately 200m in length) via a set of wooden steps down the embankment. Users will then cross Childerditch Lane and head east via a new 2m wide unsurfaced footpath within the Industrial Estate land for 40m and then along field boundary (approximately 250m in length) adjacent to the boundary of Horndon Industrial Park. Existing footpath EX/313/39 approaching the level crossing on the north side of the railway will be extinguished and approximately 15m of Footpath 4 on the south side of the level crossing will be extinguished.
- 2.24.10 The total length of the footpath diversion route is approximately 620m, however, the origin and destination points will affect the overall diversion length for many users. The new route to the west of the level crossing maintains north south links over the railway.
- 2.24.11 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.24.12 The level crossing lies within the north south public rights of way that provide general long distance walking routes in the area. The footpaths do not link directly to local amenities but form part of the connectivity in the wider context. Using the level crossing it is theoretically possible to undertake a recreational walk of over 4.5km, with ongoing routes extending this further. The creation of the diversion will reopen this footpath route.
- 2.24.13 An option was considered that would divert users from footpath 4 east on a new right of way in field margins south of St Marys Lane to join footpath 142. From there the diversion would continue north using St Marys Lane to cross the railway using the existing bridge. A new public right of way would then be created north of the railway from St Marys Lane along the eastern and northern sides of Horndon Industrial Park to join the existing footpath EX/313/39. This is shown in **NR32/2 at Tab 2, page 145**. This easterly diversion was discounted due to road safety concerns.
- 2.24.14 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The RSA concluded that there were no issues associated with the proposals to use Childerditch Road.
- 2.24.15 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on Childerditch Lane on the bridge over railway line north of junction with St Marys Lane, West Horndon, which showed an average 2 way daily traffic flow of 449 vehicles and 85th percentile speed of vehicles of 42.6 mph (southbound) where the posted speed limit is 60mph.

- 2.24.16 The proposals were considered appropriate when the traffic data was considered on this section of the route. It was noted that the design amendment to include steps close the bridge structure would entail vegetation clearance which would improve visibility over the bridge and the location of the access points to Childerditch Road would allow pedestrians to see over the bridge. No additional highway improvements measures were therefore considered necessary although vegetation clearance across the bridge would be beneficial.
- 2.24.17 The proposals at E29 Brown and Tawse have been discussed in two workshops with the local highway authority.
- 2.24.18 Following discussions with the local authority and upon assessment of the consultation feedback considerations on the westerly diversion to Childerditch Lane, it was noted that the use of road walking on Childerditch Lane was generally of a concern to all consultees. An amendment was made from the first round of consultation seek to place the proposed footpath closer to St Marys Lane but it was noted that this introduced an unacceptable amount of road walking north on Childerditch Lane. This is shown in **NR32/2 at Tab 3, page 265**.
- 2.24.19 This was subsequently revised to introduce the off road footpaths and locate the footpath in Network Rail land south of the railway line, which have been incorporated into the alternative diversionary proposals. Minor amendments were also made to avoid the use of private land north of the industrial estate.
- 2.24.20 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.25 E30 Ferry and E31 Brickyard Farm**

- 2.25.1 E30 Ferry level crossing lies on footpath EX/BENF/22 and E31 Brickyard Farm level crossing lies on footpath EX/BENF/12. They are situated on the south side of the conurbation of Benfleet. The area directly to the west of the crossing is urban residential and commercial land. The surrounding area is predominantly protected marsh land to the south, north east and north west.
- 2.25.2 E31 Brickyard Farm level crossing is approximately 80m southeast of the E30 level crossing and Benfleet train station is approximately 310m northwest of the level crossing. The train station car park terminates 30m from the E30 level crossing.
- 2.25.3 Due to safety concerns, E30 Ferry level crossing has been temporarily closed for some time. Prior to its closure, the accessibility of E30 was severely limited by the steps via which the track is reached. These exclude use of the crossing to wheelchair users and many people with limited mobility that would be unable to use the steps and access the track. The approach routes are unpaved and uneven which may also cause significant difficulty to wheelchair users and people with limited mobility for which the uneven terrain may by itself make the route unnavigable.
- 2.25.4 Unpaved roads on the northern side of the railway may reduce the accessibility of the E31 crossing for those with limited mobility. The crossing also requires users to negotiate a stile.
- 2.25.5 During a nine-day census survey, which included two weekends, a total of 110 pedestrians, 12 cyclists and 2 equestrians were recorded using the footpath level crossing with the busiest day being Saturday 9th July when 36 pedestrians and 2 cyclists were recorded. No new usage data was collected from Ferry level crossing due to its current closed status.



- 2.25.6 Of the 6 people that provided feedback on E30 during the first round of public consultation, 3 indicated that they rarely used the crossing, 2 that they used it fortnightly and 1 used it monthly. All 6 responses indicated that the crossing provides leisure access to the local footpath network. It is noted that the level crossing is actually closed.
- 2.25.7 Of the 4 people that provided feedback on E31 during the first round of public consultation, 2 indicated that they rarely used the crossing, 1 that they used it weekly and 1 used it monthly. All 4 responses indicated that the crossing provides leisure access to the local footpath network.
- 2.25.8 Based on location of the crossing point and feedback from public consultation and usage data it is considered that E31 Brickyard level crossing is used regularly by a moderate number of people to access the wider footpath network. E30 Ferry level crossing would provide much the same purpose.
- 2.25.9 The proposed alternative route can be seen on drawing number MMD-367516-E30-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.25.10 Users of existing footpath EX/BENF/31 heading west towards Ferry level crossing will be diverted west along the footway on the B1014, Ferry Road, to an existing underpass where they can cross the railway approximately 280m west of the level crossing. On the north side of the railway users will then be diverted east via a new asphalt footway 1.5m wide and a wooden post and rail fence to separate the footpath from the car park on the north side. Readjustment of car parking spaces are required within Network Rail Land at the south end of the car park.
- 2.25.11 Once the footpath is past the car park it expands to 2m width and becomes unsurfaced (within Network Rail land) for a further 30m before connecting to existing footpath EX/BENF/22.
- 2.25.12 Existing footpath EX/BENF/22 on the south side of the railway will be extinguished to the B1014. The total length of the footpath diversion route from E31 is approximately 760m, however, the origin and destination points will affect the overall diversion length for many users. The new route to the west of the level crossing maintains north south links over the railway.
- 2.25.13 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA Action	Project Team Response
<p>Develop a detailed community and stakeholder communication strategy to ensure that all local residents are kept fully abreast of developments, including scheduling of works, details of enhancements and improvements, and other benefits of the scheme, including user safety.</p> <p>The underpass has a clear view from one end to the other and a good level of lighting. If not already installed, CCTV cameras should be considered in underpass to enhance security. Notices to the effect that CCTV is in operation should deter vandals and provide a measure of comfort to users.</p>	<p>NR to undertake this at detailed design and/or implementation stage.</p> <p>The diversion route utilises the underpass and it is noted that the route through the underpass is already designated as public footpath reference EX/BENF/75 which is on the public rights of way definitive map. It is considered that this route and the use</p>

<p>Ensure that the new footpaths created meet guidelines outlined in the Equalities Act 2010. Where appropriate, the new paths should have an even surface, tactile paving, dropped kerbs and wayfinding signs. The proposal states that the new paths will be 1.5m to 2m wide. This would help ensure equality of access is maintained for all users.</p> <p>Signage detailing permitted usage should also be provided. Rest points could also be considered along the diversion route to mitigate against any impacts associated with increased walking distances.</p> <p>Review this DIA at every GRIP stage</p>	<p>of the underpass is deemed safe and suitable for use by Essex County Council. However, CCTV provision can be discussed with Essex County Council at detailed design to confirm their views on the matter.</p> <p>The proposed footpath to the west of Benfleet car park connect into a network of unsurfaced public rights of way and it is considered that new, level unsurfaced footpaths are appropriate.</p> <p>The new footpath to the south of the car park is proposed to be asphalt and detailed design will include measures that are appropriate to accord with standards for highway design in relation to pedestrian use.</p> <p>Appropriate signage will be provided.</p> <p>It is consider that the level crossing are approached from the east via an existing long distance public footpath (up to 4km in length). Potentially a circular walk of 8km is available over the level crossing. It sis considered that the length of the diversion is minor compared with the existing lengths. However, this can be confirmed/discussed further with Essex County Council at detailed design stage.</p> <p>NR to undertake this at detailed design and/or implementation stage.</p>
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- 2.25.14 Footpaths to the south of the level crossing will also be continued to be used as they are at present with no loss of amenity value. It is noted that the use of the urban environment such as Station Road and Canvey Road is needed to access the level crossings from the west at present
- 2.25.15 Within the context of the surrounding public rights of way network, it is noted that the level crossings E30 and E31 are located with good connectivity to long distance footpaths to the

west, south and east. These footpaths provide the only means of access to the level crossing from the east. Pedestrians wishing to access the vicinity of the level crossing from the east using footpath 31 have an approximate distance of 4500m to walk before reaching E30.

- 2.25.16 Pedestrians wishing to access the vicinity of the level crossing from the east using Bridleway 60, Footpath 61 and Footpath 12 have an approximate distance of 4000m to walk before reaching E30.
- 2.25.17 This connectivity provides a long footpath link from Canvey Island to the southeast of the level crossing, to South Benfleet as well as the country park. It is reasonable to note that properties at the north of Canvey Island, closest to the level crossing, would still have a walk of approximately 2000m to reach the level crossings.
- 2.25.18 Users wishing to access Benfleet Station from E31 would not have a significant change in their journey distance as a result of the level crossing closure. Access to the end of bridleway 60 at Station Road would be approximately 245m longer via the diversion route.
- 2.25.19 Within the context of the area around the level crossing it can be seen that there are a significant number of long distance footpaths in the area which can give access to the level crossing. In comparative terms the length of the diversion is relatively short for long distance footpath users.
- 2.25.20 The diversion retains the connectivity of the original route by the use of land adjacent to the car park and the railway and the public roads. This is potentially a reduction in the amenity value compared with the original route. However, the route to the south of the level crossings makes use of existing public roads and footways at present.
- 2.25.21 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The RSA concluded that there were no issues associated with the proposals
- 2.25.22 Essex County Council undertook a Road Safety Check in March 2017 and noted the following issues:
- 2.25.23 *Vulnerable road users stepping into the path of oncoming traffic. The scheme proposes to provide a new footpath through the station car park. It is unclear from the details provided of how this footpath will be segregated from the car park. If the route is left at-grade it is likely that motorists will be unaware of pedestrians entering the car parking area from the footway east of the car park. There are existing car parking spaces adjacent to the area. Motorists whilst reversing into the spaces may collide with unsighted pedestrians leading to injury.*
- 2.25.24 The design on drawing number MMD-367516-E30-GEN-005, which can be found in core document **NR26**, shows that fencing will be provided to segregate users from the car park. Further details will be submitted for the consideration and approval of Essex County Council.
- 2.25.25 *FP 12 and 22 bend east of Ferry Road it is considered that there is an issue with vulnerable road users stepping into the path of oncoming traffic. The scheme proposes to use an existing right of way along Ferry Road. There is a short section of the route that has no footway, the verge is relatively high and it is felt that during the summer months pedestrians may have difficulty stepping from the carriageway onto the verge. There will also be issue if opposing pedestrians try to pass along this section and may step into the path of oncoming vehicles leading to injury. It is recommended that vegetation is removed along the southern side of the carriageway and that a regular maintenance regime is employed to ensure that the verge is accessible during the summer months when vegetation may be high.*

- 2.25.26 It is considered that this refers to an issue with the current maintenance of the existing footpath and verge by Essex County Council. Commuted sums where appropriate will be agreed prior to implementation of the level crossing works.
- 2.25.27 The proposals at E30 and E31 have been discussed in two workshops with the local highway authority. Essex County Council object to the closure proposals as they consider that the diversion route is too long. The local authority considers that one of the level crossings should remain open, however, due to the fact that the routes across the level crossings form part of long distance paths it is considered that the additional length of diversion route is not significant.
- 2.25.28 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.26 E32 Woodgrange Close**

- 2.26.1 The crossing is in Southend-on-Sea and lies on footpath FP189. It is situated in the suburb of Southchurch. The surrounding area is urban residential and commercial land with two schools immediately to the north of the level crossing.
- 2.26.2 The crossing deck is wooden with anti-slip boards attached. The approach to the level crossing is via an uneven gravelled surface with a moderate gradient and there are also gates on either side of the crossing.
- 2.26.3 During a nine-day census survey , which included two weekends, a total of 268 pedestrians and 58 cyclists were recorded using the level crossing with the busiest day being Sunday 17th July 2016 when 57 pedestrians and 5 cyclists were recorded.
- 2.26.4 Of the 5 people that provided feedback on E32 during the first round of public consultation, 4 indicated that they used the crossing weekly and 1 never used it. Of the 4 people who stated usage of the level crossing, 2 responses indicated that the crossing provides leisure use, 1 person used it to access properties and 1 person used it to access amenities.
- 2.26.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on regularly by a relatively high number of people for a range of reasons.
- 2.26.6 The proposed alternative route can be seen on drawing number MMD-367516-E32-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.26.7 Existing footpath 189 will be extinguished. Users heading south will be diverted west along the existing footway on the A13 to Lifstan Way heading south towards an existing underbridge where users can cross under the railway. Users can then continue south along the existing footway on Lifstan Way and can either join existing footpath 192 to Buttery's or continue south before heading north east on Woodgrange Grove which is a step free diversion route.
- 2.26.8 The total length of the step free footpath diversion route is approximately 960m, however, the origin and destination points will affect the overall diversion length for many users. For users able to use the stepped route the diversion length would be approximately 740m.
- 2.26.9 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an

appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA Action	Designers Response
Develop a route improvement strategy along the diversion routes to help mitigate any negative impacts of increased walking distances, including the incorporation of benches and flat rest points. This will enhance the user experience for all groups and increase a sense of safety.	This can be considered further at detailed design and addressed if feasible and appropriate.

- 2.26.10 The alternative/diversionary route retains the connectivity to both sides of the railway via the use surfaced footways in an urban environment to access the route under the existing underbridge.
- 2.26.11 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The RSA concluded that there were no issues associated with the proposals
- 2.26.12 The proposals at E32 have been discussed in two workshops with the local highway authority. Officers reserved the right to comment on the support or otherwise for the proposal. No changes were made following consultations.
- 2.26.13 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.27 E33 Motorbike

- 2.27.1 The level crossing lies on footpath EX/279/136 and is situated on the south side of the conurbation of Pitsea in Basildon. The area immediately to the north of the crossing is commercial land (scrap yard) and the A13, which is elevated, separates this from residential housing. The area to the south of the crossing is made up predominantly of marshland and the south part of footpath EX/279/136 links to an RSPB nature reserve.
- 2.27.2 The accessibility of this site is poor, with uneven, often muddy approach roads that may serve to exclude wheelchair users and people with limited mobility from safely accessing the track. This will also be the case for the inclines and obstacles that lead to the track; these include steps that members of such groups will struggle to be able to use.
- 2.27.3 During a nine-day census survey, which included two weekends, a total of 159 pedestrians and 3 cyclists were recorded using the level crossing with the busiest day being Sunday 24th July 2016 when 30 pedestrians and 2 cyclists were recorded.
- 2.27.4 Of the 3 people that provided feedback during the first round of public consultation, 1 indicated that they never used the crossing and 2 used it rarely. The 1 response on usage indicates that the crossing provides leisure access to the local footpath network.
- 2.27.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on a regular basis by a moderate number of people to access the wider footpath network that lies to the south of the railway from properties in Vange and Pitsea.
- 2.27.6 The proposed alternative route can be seen on drawing number MMD-367516-E33-GEN-005, which can be found in Appendix F of core document **NR26**.

- 2.27.7 South of the railway, users will be diverted east via a newly created 2m wide unsurfaced footpath outside of Network Rail land before heading southeast making use of an existing footbridge to cross over a ditch and onto a new 2m wide wooden boardwalk footpath. This will lead on to a newly created 2m wide unsurfaced footpath, outside of Network Rail land, before connecting to a new footway crossing point of the existing highway Pitsea Hall Road. Users will continue north on the existing footway to Pitsea Hall road level crossing where they will cross the railway. Users will then head west along existing footpath EX/279/136 on the north of the railway via a new pedestrian crossing point of Pitsea Hall Road.
- 2.27.8 A 50m length of the existing footpath approaching the level crossing will be extinguished to prevent the creation of a dead end.
- 2.27.9 The total length of the diversion route is approximately 900m, however, the origin and destination points will affect the overall diversion length for many users
- 2.27.10 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.27.11 The wider public right of way network provides long distance leisure routes to the southwest and then south of the level crossing to Fobbing and Corringham approximately 6000m from the level crossing. The alternative diversion route would increase the length of this long distance public right of way.
- 2.27.12 To the east of the level crossing there are long distance leisure public rights of way to South Benfleet approximately 4500m away. The diversion would not significantly affect the length of these routes.
- 2.27.13 To the north the level crossing the footpath links to the conurbations of Pitsea and Vange which lie to the south of Basildon. This route would require the full use of the diversion to access public rights of way to the south west.
- 2.27.14 The alternative diversion route provides access from Pitsea and Vange for leisure walking to the south of the railway, albeit with a longer length of walking but as it is for recreational use it is considered acceptable.
- 2.27.15 No different options were considered except for the closure of the level crossing and the diversion of users to adjacent road bridge crossing of the railway. However, the initial proposals considered as part of the Route Requirement Document to use a route north of Pitsea Hall adjacent to the railway were discounted due to the lack of available and suitable space for a pedestrian footpath. The initial route proposed at Round 1 consultation is shown in **NR32/2 at Tab 2, page 153**.
- 2.27.16 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team and the following issue was identified.
- 2.27.17 *It is proposed that pedestrians will walk along a section of Pitsea Hall Lane on the western side of the carriageway where no footway or notable verge is present; this will result in pedestrians walking in the carriageway. A high number of HGVs generally travelling at excessive speeds were observed on Pitsea Hall Lane. This may lead to an increased risk of collisions between pedestrians and vehicles.*
- 2.27.18 It was recommended that suitable crossing facilities are provided to allow pedestrians to cross to the eastern side and utilise the existing segregated footway / cycleway and that vegetation clearance will need to be undertaken to provide a suitable footway / cycleway width.

- 2.27.19 As a result of this Audit the design proposals were amended to include crossing points. It is considered that the eastern footway is suitable and will continue to be used by pedestrians in the same manner as they do currently.
- 2.27.20 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on Pitsea Mount between Cromwell Manor and Terminus Drive, which showed an average 2 way daily traffic flow of 3780 vehicles and 85th percentile speed of vehicles of 25.2mph where the posted speed limit is 30mph. The proposals were considered appropriate when the traffic data was considered on this section of the route
- 2.27.21 The proposals at E33 have been discussed in two workshops with the local highway authority who have not objected to the diversion.
- 2.27.22 As a result of consultation the route was amended to avoid infrastructure associated with Pitsea Hall such as the car park and the access road with its gated entrance. The proposed route was therefore moved south to avoid this issue. The revised route is shown in the Round 2 consultation plan in **NR32/2 at Tab 3, page 273**.
- 2.27.23 In response to the TWAO submission a different alternative route or concept was suggested by an Objector as part of the TWAO process. This has been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (pages 36)**.
- 2.27.24 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.28 E35 Cranes No. 1

- 2.28.1 Footpath EX/74/14 runs in a north easterly direction crossing the railway at Cranes No. 1 level crossing, from which point it continues as footpath EX/74/14. The surrounding area is predominantly agricultural land with some isolated areas of development. The River Brain runs parallel to and on the west side of the railway.
- 2.28.2 The approach to the crossing is on flat grassland, and users have to step over a stile to reach the level crossing itself. The crossing is therefore unlikely to be accessible to wheelchair users or people with pushchairs. It is also likely to prove challenging for users with mobility difficulties due to the need to get over the fence stile to use the crossing.
- 2.28.3 During a nine-day census survey, which included two weekends, a total of 16 pedestrians were recorded using the level crossing with the busiest day being Thursday 14th July 2016 when 10 pedestrians were recorded.
- 2.28.4 Of the 9 people that provided feedback during the first round of public consultation, 2 indicated that they used the crossing weekly, 2 used it monthly, 4 people rarely used it and 1 person never used it. Feedback indicates that the crossing provides leisure access to the local footpath network for 7 users, 1 person used it to access local amenities and 1 person gave no response.
- 2.28.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on regularly by a small number of people to access the wider footpath network.
- 2.28.6 The proposed alternative route can be seen on drawing number MMD-367516-E36-GEN-005, which can be found in Appendix F of core document reference **NR26**.



- 2.28.7 Users of existing footpath EX/74/14 heading east towards the level crossing will be diverted east along a newly created 2m wide unsurfaced footpath, before crossing the railway via an existing 10m long underpass (min width 1.1m, min height 1.75m). On the eastern side of the underpass, users will continue east via a proposed 2m wide unsurfaced footpath and join existing footpath EX/74/14. Approximately 30m of footpath EX/74/14, on approach to the level crossing on both sides of the railway will be extinguished to prevent the creation of a dead end.
- 2.28.8 The use of the underpass, including the existing widths and heights of the underpass have been discussed with Essex County Council who have supported the proposals in principle. No objections to this have been raised by ECC in response to the TWAO submission. The underpass is straight with good sightlines. It is considered that shared use of the underpass would be self enforcing and conflicts would be avoided by users. The reported water ponding can be investigated further with the body responsible for the underpass at detailed design stage.
- 2.28.9 Ground level checks have been made on the existing footpath 14 on the eastern approach to the railway using publicly available LIDAR digital terrain data. This shows that the gradient of the existing footpath over the 100m approaching the diversion is approximate 6%. The footpath diversion route east of the railway, from the LIDAR data, is likely to be in the order of 7% and therefore very close to the gradient of the footpath which users have to negotiate to reach the level crossing at present. Local slope adjustments to provide an even walking surface may be needed and these would be considered further at detailed design.
- 2.28.10 From the LIDAR data, the existing field gradient is seen to be already greater than the ideal slope of 1:20 (5%) but less than the maximum slope if 1:12 (8%) which is generally applied for protected users.
- 2.28.11 An DIA scoping exercise noted that due to issues with accessibility at the current crossing (notably the presence of stiles and approaches across grassland), it is felt that there will be no reduction in pedestrian accessibility at a result of closure and redirection of Cranes No. 1 level crossing. Following the scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.28.12 It is considered that the diversion route is not likely to have significant impacts on the nature of the route that is currently available to pedestrians.
- 2.28.13 The diversion route is not significantly longer than the existing route.
- 2.28.14 The proposals at E35 have been discussed in two workshops with the local highway authority who have not objected to the diversion.
- 2.28.15 Following consideration of use of the existing route across the level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.29 E36 Cranes No. 2**

- 2.29.1 Footpath EX/120/8 runs in a north easterly direction crossing the railway at Cranes No. 2 level crossing, from which point it continues as footpath EX/74/11. The surrounding area is predominantly agricultural land with some isolated areas of development. The River Brain runs parallel to and on the west side of the railway.
- 2.29.2 The approach to the level crossing consists of a narrow gravel path on either side which is overgrown. Accessing the level crossing also requires use of steps.

- 2.29.3 During a nine-day census survey, which included two weekends, a total of 3 pedestrians were recorded using the level crossing with one pedestrian being recorded using the crossing on Sunday 10th, Monday 11th and Tuesday 12th of July 2016.
- 2.29.4 Of the 10 people that provided feedback during the first round of public consultation, 2 used it weekly, 6 people rarely used it and 2 people never used it. Feedback indicates that the crossing provides leisure access to the local footpath network for 7 users and 3 gave no response.
- 2.29.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on an occasional basis by a small number of people to access the wider footpath network.
- 2.29.6 The proposed alternative route can be seen on drawing number MMD-367516-E36-GEN-005, which can be found in Appendix F of core document reference **NR26**.
- 2.29.7 Users of footpath EX/120/8 will be diverted south east via existing footpath EX/120/21 to an existing underbridge Users will then continue north east along existing footpaths EX/120/10, EX/74/12 and EX/74/28 and connect existing footpaths EX/74/11.
- 2.29.8 On the east side of the railway, footpath EX/74/11 will be extinguished on approach to the level crossing to prevent the creation of a dead end. West of the railway, Footpath EX/120/8 will be extinguished on approach to the level crossing to prevent the creation of a dead end.
- 2.29.9 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.29.10 The length of the additional route is approximately 600m but this will depend on user origin and destination.
- 2.29.11 The level crossing forms part of a footpath route to the northeast which is approximately 3300m in length.
- 2.29.12 Connectivity is maintained via the use of the underpass accessed by rural footpaths
- 2.29.13 The proposals at E36 have been discussed in two workshops with the local highway authority who have not objected to the diversion.
- 2.29.14 Following consideration of use of the existing route across the level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.30 E37 Essex Way

- 2.30.1 Footpath EX/120/13 runs in a north easterly direction crossing the railway at Essex Way level crossing, from which point it continues as footpath EX/74/37. The crossing is in an agricultural area. The River Brain runs parallel to the railway, to the south west.
- 2.30.2 The accessibility of the Essex Way crossing is limited by the approaches through farmland which are uneven and unpaved, reducing the ability of wheelchair users and people with limited mobility from safely accessing the crossing. The steep incline to reach the track would also effectively exclude such users as the grassy and potentially muddy hill would act as a major barrier. Users are also required to negotiate a stile to access the crossing.

- 2.30.3 During a nine-day census survey, which included two weekends included two weekends, a total of 42 pedestrians were recorded using the level crossing with the busiest day being Thursday 14th July 2016 when 16 pedestrians were recorded.
- 2.30.4 Of the 11 people that provided feedback during the first round of public consultation, 1 indicated that they used the crossing daily, 1 used it weekly, 3 used it monthly, 5 people rarely used it and 1 person never used it. Feedback indicates that the crossing provides leisure access to the local footpath network for 9 users, 1 person used it to access neighbouring properties, 1 person used it to access their local amenities and 1 person gave no response.
- 2.30.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on regularly by a moderate number of people to access the wider footpath network with a smaller number accessing amenities.
- 2.30.6 The proposed alternative route can be seen on drawing number MMD-367516-E37-GEN-005, which can be found in Appendix F of core document reference **NR26**.
- 2.30.7 On the west side of the railway, users of footpath EX/120/13 will be diverted east along a proposed 2m wide unsurfaced footpath through a small area of woodland and across a field before crossing the railway via an existing underpass to the southwest of Essex Way level crossing. Users continue north via a proposed footpath within field margins to connect to existing footpath EX/74/37. West of the railway footpath EX/120/13 will be extinguished on approach to the level crossing to prevent creation of a dead end. Similarly, east of the railway footpath EX/74/37 would be extinguished on approach to the level crossing to prevent the creation of a dead end.
- 2.30.8 The use of the underpass has been discussed with Essex County Council and no objection to its use has been raised. The Environment Agency flood map shows the majority of the proposed route including the underpass to be in a flood zone 1 which is described as a low risk of flooding. The proposed section of the footpath adjacent to the River Brain has to connect into footpath 13 which mirrors the existing footpaths location that lies within a flood zone 2 and 3. It is not considered that the proposed footpath is more prone to flooding that the existing footpaths provided by Essex County Council.
- 2.30.9 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.30.10 The level crossing route forms part of long distance PROWs to the south and east which are over 3500m in length. The length of the additional route is approximately 420m.
- 2.30.11 Connectivity is maintained via the use of the underpass accessed by rural footpaths
- 2.30.12 An option was considered at round 1 and round 2 consultations which proposed to create a new footpath route alongside the railway. This can be seen in **NR32/2 at Tab 2, page 159 and 3, page 279**. This was not ultimately progressed, in order to mitigate concerns that the private level crossing, called Philpot, between the E37 level and the underpass would be used illegally or by mistake by pedestrians using the diversion route.
- 2.30.13 The proposals at E37 have been discussed in two workshops with the local highway authority who have not objected to the diversion.
- 2.30.14 In response to the TWAO submission a different alternative route or concept was suggested by an Objector as part of the TWAO process. This has been assessed further and the consideration are presented in **Document NR32/2 at Tab 7 (page 34)**.

- 2.30.15 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.31 E38 Battlesbridge

- 2.31.1 The level crossing lies on footpath EX/229/23 which links to industrial units approximately 300m east of the level crossing. The A1245 is immediately to the west of the level crossing and is elevated to cross over the railway. The surrounding area is mainly agricultural land, with the village of Battlesbridge located east of the crossing.
- 2.31.2 There is no clearly defined footpath to the level crossing on either side of the railway and users wishing to cross the railway must walk along a grassy path which lead to steps up to the crossing itself. This is likely to pose access restrictions for a number of users, including those with mobility impairments, older people and pushchair users.
- 2.31.3 During a nine-day census survey, which included two weekends, no users were recorded at this level crossing.
- 2.31.4 Of the 3 people that provided feedback during the first round of public consultation, 1 indicated that they never used the crossing, 1 used it rarely and 1 used it monthly. Feedback from 2 people with a preference indicates that the crossing provides leisure access to the local footpath network.
- 2.31.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on infrequently by a small number of people to access the wider footpath network.
- 2.31.6 The proposed alternative route can be seen on drawing number MMD-367516-E38-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.31.7 North of the railway, users of footpath EX/229/23 will be diverted north via a new 2m wide unsurfaced footpath outside of Network Rail land where users will walk in the wide grass verge on the A1245 using the hardened verge over the road bridge to cross the railway. On each side of the railway, a set of 2m wide wooden steps will be provided up the road embankment and a gaps with appropriate overlaps will be created in the existing vehicle crash barriers (VRS Vehicle Restraint System) on the A1245. Users will connect to footpath EX/229/23 via a new 2m wide unsurfaced footpath outside of Network Rail land on the south side of the railway. Immediately south of the level crossing a 40m section of footpath EX/229/23 will be extinguished.
- 2.31.8 There is a 60m section of the bridge deck which forms part of the diversion route that is hard paved. The remaining sections of the footpath diversion along the A1245 (approximately 100m) with make use of the wide verges which exist at present. Appropriate signage will be provided to direct all users along the diversion route and inform them of the presence of the footpath.
- 2.31.9 The total additional length of the diversionary route is approximately 375m with approximately 160m being on the A1245.
- 2.31.10 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.31.11 The level crossing is located on a long distance footpath which provides the only means of access to the level crossing from the east and west. Pedestrians wishing to access the vicinity

of the level crossing using Footpaths 08 and 23 have an approximate distance of 2100m to walk between Hawk Lane near Battlesbridge village and Runwell Road near the village of Runwell.

- 2.31.12 The proposed route provides access for pedestrians wishing to walk west to east between Runwell and Battlesbridge as does the original route. The route is longer than existing, however, as it provides leisure walking it is considered acceptable.
- 2.31.13 No different options were considered except for the closure of the level crossing and the diversion of users to adjacent road bridge crossing of the railway. This route was developed from the initial route shown at Round 1 consultation, which is shown in **NR32/2 at Tab 2, page 161**.
- 2.31.14 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team which did not raise any issues with the use of the A1245.
- 2.31.15 Essex County Council undertook a Road Safety Check in March 2017 prior to the TWAO submission and noted the following issues - Motorists colliding with vulnerable road users/ rolling down the embankment.

*The scheme proposes to divert pedestrians along new sections of footpath up/ down new steps and along the A1245. There is an existing VRS along this route to protect vehicles from falling down the embankment. The scheme drawings provided suggest that the existing barrier is to be amended. These details have not been provided. If changes are made to the barrier a RRRAP assessment should be undertaken to determine what restraint system and what length should be used. It is also unclear if a "break or gap" is proposed within the existing VRS to allow pedestrians to walk along the verge. Alternatively if the existing VRS is to remain vulnerable pedestrians will be forced to walk within the working width of the VRS and would be injured if an errant vehicle collides with the barrier leading to injury. There are BT utility covers that may hinder the placement of new barrier. Any new barrier should be suitably terminated without ramped ends. It was recommended that further details are provided.*

- 2.31.16 The detailed consideration of the amendments of the VRS along the A1245 are to be undertaken at a later detailed design stage. This will be in accordance with DMRB TD19/06 Requirements for Road Restraint Systems where Chapter 3 Criteria and Guidance for the Provision of Permanent Safety Barriers covers modifications to VRS. This document provides guidance on the measures needed to provide gaps in barriers for access, the lengths of transitional barrier overlaps on approach and departure from the bridge. Further details will be provided for Essex County Council consideration.
- 2.31.17 Automatic Traffic Count data (see **Document NR32/2 at Tab 1**) was collected on the A1245, which showed an average 2 way daily traffic flow of 17502 vehicles and 85th percentile speed of vehicles of 57.5mph where the posted limit is 60mph.
- 2.31.18 The A1245 has been built to meet current highway alignment standards and therefore the verge is widened in this location to provide forward visibility. This provides pedestrians with a clearance approximately 5m to the edge of the running lane of traffic. Therefore the proposals were considered appropriate when the traffic data was considered on this section of the route.
- 2.31.19 The proposals at E38 have been discussed in two workshops with the local highway authorities.
- 2.31.20 However, Officers object to the proposals due to their consideration of the diversion length and perceived loss of amenity.

- 2.31.21 The route was amended following Round 1 consultations with the local authorities to provide a slightly more direct route for users within the confines of the land available. The amendments can be seen in Appendix C. This amended route was taken forward to the TWAO submission.
- 2.31.22 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.32 E41 Paget

- 2.32.1 Paget level crossing is traversed by footpath for pedestrian use. The crossing is located in a urban location, in the southern part of the Wivenhoe conurbation. There are residential properties immediately north and south of the level crossing.
- 2.32.2 The approach to the level crossing is via a narrow gravel path between residential houses. Once past a wooden gate, metal railings and vegetation narrow the path even further, restricting access for some users, e.g. those in wheelchairs / mobility scooters and pushchairs. The only signage warns of overhead cables, but not passing trains. The crossing itself has gaps between the walkway and the tracks.
- 2.32.3 During a nine-day census survey, which included two weekends, a total of 1184 pedestrians and 2 cyclists were recorded using the level crossing with the busiest day being Saturday 9th July 2016 when 314 pedestrians were recorded.
- 2.32.4 Of the 50 people that provided feedback on E41 during the first round of public consultation, 21 indicated that they used the crossing daily, 12 that they used it weekly, 10 that they used it fortnightly and 5 used it monthly and 2 users rarely used the crossing. Of the 50 people that provided feedback, 25 indicated that the crossing was used to access local amenities, 16 for leisure use, 4 to access neighbouring properties, 2 to access their own property, 1 use of the level crossing for commuting and 2 people stated 'other' use.
- 2.32.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on a regular basis by a high number of people to access services in the northern part of the village and for access to amenities and the wider footpath network that lies to south of Wivenhoe, from property on either side of the level crossing.
- 2.32.6 The proposed alternative route can be seen on drawing number MMD-367516-E41-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.32.7 On the south side of the railway, users of the level crossing will be diverted along Paget Road mainly using the carriageway, and then along Anglesea Road (a privately maintained public road) using the carriageway heading north, before crossing the railway via an existing road bridge. Users will continue north along Anglesea Road to connect to Queens Road. Footways are available on Queens Road although a handrail will be provided due to the steepness of the gradient and a paved area will be reprofiled to provide a flatter rest area with a bench.
- 2.32.8 The current level crossing access on the south side of the railway will be removed. On the north side of the railway a new 1.5m wide stoned surface footpath link within Network Rail land will be created west from the level crossing to link to Phillip Road. This new footpath in Network Rail land will require a wooden footbridge less than 5m long to cross an existing watercourse and the footpath will be fenced off with 2.0m high steel palisade fencing. Users can the continue west along to High Street to use the existing road bridge to cross the railway. Widening of some of the existing footway on High Street over road bridge is proposed.

- 2.32.9 The unsurfaced nature of Anglesea Road was noted and the benefits of providing tarmac surfacing or segregated footways was considered further. It was noted that the surfacing matched the approaches to the level crossing and was not therefore a reduction in accessibility. Due to the widths and current car parking usage by residents it was considered that a segregated footway would be rendered unavailable to users as a result of on street parking. This would have to be subject to Traffic Regulations Orders and parking enforcement which was considered to be unlikely to be enforceable and likely to be objected to by local residents. Anglesea Road is not adopted and therefore any works to the street would be subject to discussion and agreement (or CPO process) with all or a majority of frontages. It is recognised that the use of shared surface spaces encourages low speeds in low vehicular flow environments as set out in Manual for Streets 2<sup>2</sup>
- 2.32.10 LIDAR data was assessed to understand the gradient of Anglesea Road, which varied but lay between approximate values of 3.9% and 5.5% with an average gradient of 5% (1:20). This average is within the recommended figure for access as stated in the Equalities Act 2010. The existing Queens Road gradient was found to be steeper at approximately 11.5% (1 in 8.5).
- 2.32.11 The total length of the diversion route to the east is approximately 335m and the total length of the diversion route to the west is approximately 500m, however, the origin and destination points will affect the overall diversion length for many users.
- 2.32.12 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA Action	Designers Response
Develop a route improvement strategy along the diversion routes to the crossing with the local authority to enhance the user experience for all groups (e.g. the relocation of utility poles), increase a sense of safety (for example through use of good quality lighting, CCTV, or improved natural surveillance) and encourage use by all groups.	<p>The proposals in effect now offers three diversion routes for users: one via Anglesea Road; one via Queens Road to High Street; and one via the new footpath link and Philip Road to High Street. Queens Road is lit with a full footway, it also offers (along with Anglesea Road) offer good natural surveillance.</p> <p>There are no underbridges so CCTV is not considered appropriate.</p> <p>Discussions have been held with the local authority regarding pedestrian improvements to the railway bridge on High Street.</p>
Explore improvements to diversion routes in partnership with the local authority including: the relocation of utility poles and street lighting; signage to support way finding; and ensuring level surfaces, including dropped kerbs and tactile paving.	A flat rest area has been incorporated into the scheme proposals. A pedestrian improvement scheme to the High Street overbridge has also been provisionally agreed by the Highway Authority. A new

<sup>2</sup> Published by the Chartered Institution of Highways and Transportation



	footpath link has also been incorporated into the scheme mitigation
Tactile surfaces and handrails of an appropriate height, colour and material should be implemented on the proposed new routes to improve access for users with visual and mobility impairments.	The provision of these facilities within the adopted highway should be discussed further with the Highway Authority at the detailed design stage.
Consideration should be given to the viability of creating of a footbridge at Paget level crossing and the construction of a footpath on the Anglesea Road bridge to improve pedestrian safety.	<p>This has been considered by NR and there is not the space for a bridge. In addition the presence of residential dwellings within 5m of the level crossing would mean unacceptable impacts on the amenity of those households.</p> <p>Anglesea Road is a privately maintained highway which is currently a shared surface. The construction of a footway is not considered necessary or desirable and would likely generate significant opposition from the street owners/ maintainers.</p>

- 2.32.13 The alternative/diversionary routes retains the connectivity to services and amenities on both sides of the railway via the use of the existing road bridges, which are currently used by pedestrians and considered suitable for the existing users of the level crossing.
- 2.32.14 No different options were considered except for the closure of the level crossing and the diversion of users to adjacent road bridge crossing of the railway. However, the initial proposals considered at Round 1 consultation solely used the road bridge to the east. This route can be seen on the Round 1 consultation summary sheet for E41 contained within **NR32/2 at Tab 2, page 163**.
- 2.32.15 The proposal route using Anglesea Road was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The RSA concluded that there were no issues associated with the proposals.
- 2.32.16 A Further Road Safety Audit will be undertaken on the route using High Street and any issues will be addressed during detailed design.
- 2.32.17 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on Anglesea Road between Brook Street and Queen's Road, which showed an average 2 way daily traffic flow of 291 vehicles and 85th percentile speed of vehicles of 13.4mph where the posted is 20mph. The proposals were considered appropriate when the traffic data was considered on this section of the route
- 2.32.18 The proposals at E41 have been discussed in two workshops with the local highway authority. Essex County Council Officers have not objected to the proposals.
- 2.32.19 Concerns were raised as part of the consultation process with respect to the existing gradients of the public roads to the east of the level crossing. As a consequence, the additional link to the west to use the High Street road bridge which would be reached via Network Rail land and Phillip Road was included to provide a route with less gradient to overcome and to reduce the



diversion length for some users wishing to access amenities to the west. It was also noted that measures to assist users on Queens Road would be incorporated into the proposals.

- 2.32.20 Following discussions Essex County Council and Colchester Borough Council some High Street footway improvement measures were included in the level crossing closure proposals. This included footway widening on High Street over the narrow section of the bridge to mitigate the safety concerns that were raised. These outline proposals have been developed to incorporate bus turning manoeuvres from Station Road.
- 2.32.21 Consideration was given as to whether the footway could be widened continuously on the east side of the High Street bridge. It was considered that this would entail the modification of the bridge parapet and the construction of footway works within Network Rail land to provide additional space for turning buses. This would need substantial modifications which may impact on the bridge structure itself and could result in a substandard alignment of the parapet on the approach to bridge which would cause safety concerns.
- 2.32.22 Following consideration of use of the existing route across Paget level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

### 2.33 E43 High Elm

- 2.33.1 The level crossing lies on footpath EX/157/4 which links from the B1027 south of the level crossing to footpath EX/157/5 approximately 250m north of the level crossing. The land surrounding the level crossing is predominantly private fields to the south and woodland to the north.
- 2.33.2 The accessibility of this crossing is poor with the use of stiles and steps to reach the crossing from either side excluding wheelchair users and many users with limited mobility from accessing the crossing. The narrow pathways to access the crossing also reduce the accessibility of this site as users with limited mobility or visual impairments may struggle to navigate the uneven ground and overgrown plant life.
- 2.33.3 During a nine-day census survey, which included two weekends, a total of 23 pedestrians were recorded using the level crossing with the busiest days being Sunday 10th, Monday 11th and Friday 15th July 2016 when 4 pedestrians were recorded each day.
- 2.33.4 Of the 12 people that provided feedback on E43 during the first round of public consultation, 2 indicated that they used the crossing daily, 1 that they used it weekly, 1 that they used it fortnightly, 3 used it rarely and 5 never used it. Of the 7 answered responses on usage 6 people indicated that the crossing provides leisure use and 1 person indicated it was used to access neighbouring properties.
- 2.33.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on regularly by a small number of people to mainly access the wider footpath network.
- 2.33.6 The proposed alternative route can be seen on drawing number MMD-367516-E43-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.33.7 South of the railway, users of existing footpath EX/157/4 will be diverted west along an existing footway on the southbound side of the B1027. Users will then follow this footway for approximately 100m where a new pedestrian crossing point is to be installed to enable users to utilise the existing footway on the northbound side of the B1027. Users will continue north to

cross the railway via the existing road bridge and footway. Another new crossing point will be provided to enable users to access EX/157/5 to continue east via existing footpath EX/157/5. South of the level crossing footpath EX/157/4 will be extinguished to prevent the creation of a dead end. North of the level crossing footpath approximately 65m of footpath EX/157/4 will be extinguished adjacent to the railway. However, access to the woodland will remain from the north.

- 2.33.8 The total additional length of the diversion route to the east is approximately 925m however, the origin and destination points will affect the overall diversion length for many users.
- 2.33.9 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.33.10 The footpaths in the area are long distance rural routes, considered to be used for recreational walking purposes and the length of the diversion varies for users, depending on origin and destination. However, pedestrians using the long distance footpaths in the area via the level crossing can be seen to reach Frating village northeast of the level crossing via public rights of way approximately 3000m long.
- 2.33.11 There is seen to be no ongoing connectivity to footpaths generally to the west of the level crossing within Alresford and to reach the existing footpaths to the southeast and northwest require the use of the B1027 at present.
- 2.33.12 For the ongoing routes east along Footpath 5 Alresford the diversion route is approximately 900m (from the southern end of Footpath 4 Alresford) and it is noted that the existing footpath length via Footpath 4 Alresford is 500m. The additional diversion length is 400m longer than the exiting footpath access.
- 2.33.13 The long distance footpaths have been increased in length for some users by approximately 400m due to the diversion.
- 2.33.14 An option was considered which proposed to divert users from the B1027 approximately 70m north of the road bridge and use private land to return users to footpath EX/157/4 on north side of the railway. This route is shown in red in **NR32/2 at Tab 2, page 165**. This route was discounted due to the impacts on vegetations, trees, private land and the need to install steps for users on the road embankment.
- 2.33.15 Essex County Council undertook a Road Safety Check in March 2017 prior to the TWAO submission and noted the following issues - Vulnerable road users clipped by passing motorists.

*The scheme proposes to divert pedestrians along the existing highway network. The B1027 has a 40mph speed limit, but is relatively wide with a high traffic flow. The plans provided detail new pedestrian islands. It is unclear what width and standard these refuges will be constructed to. If the new refuges are too narrow vulnerable road users, particularly groups of walkers, may be clipped by passing motorists leading to injury. If there are no bollards or illumination motorists may collide with the island leading to injury during the hours of darkness. If no tactile paving and dropped kerbing are provided pedestrians may trip and fall, partially sighted pedestrians may be unaware of the facility and step into the carriageway into the path of oncoming vehicles leading to injury. It is recommended that details of the pedestrian refuges are provided to the audit team for comment ensuring the refuge is a minimum width of 2.0m, that illuminated bollards are provided and tactile paving is provide on the refuges and adjacent footways.*

- 2.33.16 The refuge islands and associated pedestrian crossing facilities will be designed in accordance with Essex County Council highway standards and submitted for approvals prior to the level

crossing closure works being undertaken. The design will be subject to a Stage 2 RSA prior to construction

- 2.33.17 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on B1027 Tenpenny Hill between Wivenhoe Road and Crestlands, which showed an average 2 way daily traffic flow of 9630 vehicles and 85th percentile speed of vehicles of 45.3mph where the posted is 40mph.
- 2.33.18 The proposals were considered appropriate when the traffic data was considered on this section of the route. However, it is acknowledged that the posted speed limit is exceeded which could be discussed further with the bodies responsible for traffic enforcement.
- 2.33.19 Publicly available data sources show that there have been no pedestrian accidents on the B1027 from years 2000 to 2016.
- 2.33.20 The proposals at E43 have been discussed in two workshops with the local highway authority. .
- 2.33.21 Following consideration of use of the existing route across the level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.34 E45 Great Bentley Station and E46 Lords No 1**

- 2.34.1 E45 level crossing lies on footpath EX/165/8 and is located at the southern edge of the village of Great Bentley. The E46 level crossing lies on footpath EX/165/12 The land surrounding the level crossing to the southeast is predominantly agricultural fields. There is a scrap yard immediately north of the level crossing and industrial units immediately to the west. Great Bentley railway station is approximately 150m to the west and the platform terminates approximately 20m from the level crossing. E46 Lords No 1 level crossing is approximately 300m to the east of the level crossing
- 2.34.2 The accessibility of E45 level crossing is poor as the presence of stiles, steps and narrow paths leading to the crossing prevents wheelchair users or those with limited mobility from using the crossing.
- 2.34.3 The accessibility of E46 level crossing is also poor, as the crossing has stiles either side of the track that will exclude wheelchair users and many people with limited mobility. There are also narrow, unlit and uneven pathways to access the crossing from the north side and open fields with no actual pathway on the southern side. These surfaces will add further barriers to wheelchair users and people with limited mobility using this crossing.
- 2.34.4 During a nine-day census survey, which included two weekends, a total of 39 pedestrians and 2 cyclists were recorded using the E45 level crossing with the busiest day being Saturday 9th July 2016 when 12 pedestrians were recorded. During the nine-day survey period for E46, a total of 23 pedestrians and 1 cyclist were recorded with the busiest day being Friday 8th July 2016 when 8 pedestrians were recorded.
- 2.34.5 Of the 17 people that provided feedback on E45 during the first round of public consultation, 3 indicated that they rarely used the crossing, 1 never used it, 4 people used it daily, 3 people used it weekly, 2 people used it fortnightly and 4 people used it monthly. The level crossing was used for leisure purposes by 12 people, 2 people used it to access local amenities, 1 person for commuting with 2 people not providing a usage feedback.

- 2.34.6 Of the 18 people that provided feedback on E46 during the first round of public consultation, 7 indicated that they rarely used the crossing, 1 person used it daily, 3 people used it weekly, 3 people used it fortnightly and 4 people used it monthly. The level crossing was used for leisure purposes by 15 people, 2 people used it to access local amenities, 1 person for accessing neighbouring properties.
- 2.34.7 Based on location of the crossing points and feedback from public consultation, it was considered that the crossings provide primarily leisure access to the local footpath network with some access to amenities and properties and they are used regularly by a relatively small number of people.
- 2.34.8 The proposed alternative route can be seen on drawing number MMD-367516-E45-GEN-005 and MMD-367516-E46-GEN-005 which can be found in Appendix F of core document **NR26**.
- 2.34.9 Users of footpath EX/165/8 will be diverted west via a new 2m wide unsurfaced footpath in the field edge around allotments, south of Plough Road Business Centre. Public access rights will be required to allow the footpath to be taken through the Business Park.
- 2.34.10 This will connect users to an existing footway along Plough Road where users will be directed north over Great Bentley (CCTV) level crossing or the adjacent footbridge. Once in Great Bentley users can follow an existing footway or verges along Plough Road and Station Road.
- 2.34.11 North of the E45 level crossing FP EX/165/8 will be extinguished up to Birch Avenue to prevent the creation of a dead end. South of the crossing approximately 135m of footpath EX/165/8 will be extinguished. North of the E46 level crossing footpath EX/165/12 will be extinguished to prevent the creation of a dead end. South of the crossing approximately footpath EX/165/12 will also be extinguished.
- 2.34.12 The total additional length of the diversion route to the east is approximately 750m however, the origin and destination points will affect the overall diversion length for many users.
- 2.34.13 Following a scoping study, a DIA was not considered necessary at either of these crossings due to the current restricted accessibility of the existing crossing route.
- 2.34.14 The E45 level crossing provides north south connectivity between Great Bentley and Aingers Green village. This public right of way is approximately 1300m in length. Further ongoing routes require the use of the public roads.
- 2.34.15 However, the wider footpath network for recreational use lies approx 675m to the west (EX/165/5) and 560m east of the level crossing (EX/165/11) (as a straight line). It is a reasonable to consider the distances required to reach these point in order to continue ongoing walks.
- 2.34.16 The additional distances to footpath EX/165/5 at Thorrington Road from the junction of footpath EX/165/12 and bridleway EX/165/20 is approximately the same as the existing distance the users must undertake via the level crossing and footpath EX/165/18.
- 2.34.17 The additional distances to footpath EX/165/11 at Wheeley Road from the junction of footpath EX/165/12 and bridleway EX/165/20 is approximately 810m longer.
- 2.34.18 The closure of E46 diversion would not appear to preclude the use of the village green which is not reached directly by footpath EX/165/12 over the level crossing.
- 2.34.19 The alternative/diversionary routes retain the connectivity to both sides of the railway to access the wider footpath network for leisure use and to access services within Great Bentley.

- 2.34.20 Initial feasibility works considered a route to the west of the level crossing that would utilise land adjacent to the north side of the railway and connect to the existing train station platform approx 30m away from the level crossing. It was intended that the station platform would form part of the diversion route to Great Bentley (CCTV) level crossing or the adjacent footbridge. This option was withdrawn by Network Rail at the end of the feasibility assessment stage.
- 2.34.21 Three options for E45 were considered at round 1 consultation and these are shown in E45 summary sheet shown in **NR32/2 at Tab 2, page 167**. All of these options diverted users west to Great Bentley CCTV road level crossing.
- 2.34.22 Three options for E46 were considered at round 1 consultation and these are shown in E46 summary sheet shown in **NR32/2 at Tab 2, page 169**. All of these options diverted users west to Great Bentley CCTV road level crossing.
- 2.34.23 For both crossings, the blue route was discounted due to the length of road walking. The green route was discounted due to the effect on private business (scrap yard) to the north of the level crossing and the effect on land to the south due to the cross field path. The red route was developed further as the preferred combined option for both crossings.
- 2.34.24 It was recognised that the diversion proposals would have to take cognisance of a proposed housing development south of the level crossing.
- 2.34.25 A Road Safety Audit will be undertaken on the route and any issues will be addressed during detailed design.
- 2.34.26 The proposals at E45 and E46 have been discussed in two workshops with the local highway authority. Essex County Council have not objected to the proposals.
- 2.34.27 Following consultations the diversionary route to the north of the railway was removed from the private scrapyards business and it was proposed that use was made of the existing public highways. The route to the south of the level crossing was altered to sit on the boundary of an allotment area south of the industrial estate west of footpath EX/165/8. To address concerns raised by the landowner adjacent to E46 the proposed footpath link from footpath EX/165/12 was removed as it was recognised that utilising the existing bridleway EX/165/20 would fulfil the same purpose.
- 2.34.28 As the final route was considered to be significantly different from that shown a round 2, a further information update was issued to parties including the public and statutory consultees and this is shown in **NR32/2 at Tab 4, page 352**. No changes were made following this exercise.
- 2.34.29 Following consideration of use of the existing routes across the Level Crossings and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.35 E47 Bluehouse**

- 2.35.1 The level crossing lies on footpath EX/164/16 and is surrounded by agricultural fields.
- 2.35.2 There is no formal path to the level crossing on either side of the railway, therefore all users wishing to cross the line must walk along natural tracks which run along the border, or go through, the adjoining fields. The approaches themselves and the presence of stiles currently prevent access for certain users, such as people with visual or mobility impairments and

children in pushchairs. The crossing furniture itself also does not span the entire length of the level crossing, making it difficult for some users to cross.

- 2.35.3 During a nine-day census survey, which included two weekends, a total of 23 pedestrians were recorded using the level crossing with the busiest day being Thursday 14th July 2016 when 13 pedestrians were recorded of which 12 were railway personnel.
- 2.35.4 1 person that provided feedback during the first round of public consultation indicated that they never used the crossing.
- 2.35.5 Based on location of the crossing point as feedback from public consultation was not forthcoming, it was considered that the crossing provides infrequent leisure access to the local footpath network for a relatively small number of users.
- 2.35.6 The proposed alternative route can be seen on drawing number MMD-367516-E47-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.35.7 South of the railway, users heading north along Pork Lane, intending to use existing footpath EX/164/16 will be diverted north along the existing verge alongside Pork Lane where they will cross the railway via the existing Pork Lane crossing. North of the railway, users will then be diverted east along a new 2m wide unsurfaced footpath outside of Network Rail land within field margin parallel to the railway, connecting users to existing footpath EX/164/16 connecting to Thorpe Road. South of the level crossing footpath EX/164/16 will be extinguished to prevent the creation of a dead end.
- 2.35.8 The diversionary footpath is approximately 50m longer than the existing route.
- 2.35.9 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.35.10 The level crossing provides north south connectivity between rural roads but does not appear to be part of a wider network. The majority of the public rights of way are to the east of the level crossing. This public right of way using the level crossing, EX/164/16, is approximately 770m in length. Further ongoing routes require the use of the public roads including Pork Lane.
- 2.35.11 The alternative routes maintain the connectivity to both sides of the railway via rural walking routes of a similar nature to those that already exist on the route.
- 2.35.12 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The RSA concluded that there were no issues associated with the proposals.
- 2.35.13 It is considered that the existing footpath 16 makes use of Pork Lane at present and that the alignment and highway verges of the road north of existing footpath the level crossing (on the diversion route) is of the same character as that currently deemed acceptable for use by Essex County Council to provide connectivity between existing public rights of the way in the area.
- 2.35.14 In the vicinity of the level crossing it is considered that the area where the proposed footpath joins Pork Lane is free of vegetation and obstructions and will provide a safe waiting area for users. There is a marked pedestrian refuge (footway) area at the road level crossing which is on the same side (east) as the proposed footpath diversion. This will allow users to be separated from the carriageway once they exit the proposed footpath. This separation away from the carriageway running line continues to be provided south of the road level through the use of verges and off carriageway areas. There are double white lines in the vicinity of the road level

crossing which make overtaking illegal which assists in the safe management of vehicles through this interface zone around the level crossing.

- 2.35.15 To the north of the road level crossing there are warning signs to tell drivers to be aware of the approaching level crossing and this, coupled with the narrow roads widths and bends, are measures that are used when it is advantageous to reduce vehicles speeds.
- 2.35.16 Publicly available accident data shows that there have only been two road traffic accidents on Pork between 1999 and 2016 in the vicinity of the footpath diversion which includes the current access/egress onto Pork Lane by the existing footpath 16. These accidents did not involve pedestrians.
- 2.35.17 The proposals at E47 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposals and no changes were made following consultations.
- 2.35.18 In response to the TWAO submission different alternative routes or concepts were suggested by Objectors as part of the TWAO process. These have been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (pages 25 and 35)**.
- 2.35.19 Following consideration of use of the existing routes across the level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.36 E48 Wheatsheaf**

- 2.36.1 The level crossing lies on footpath EX/184/19 is situated in an area of woodland north and south of the railways. Agricultural fields lie outside of the woodland.
- 2.36.2 There are 25+ steps up to the level crossing at a steep gradient, a hand rail is provided on the left hand side for users to hold on to. On one side the path leading up to the crossing is made of narrow wooden boards, this surface is likely to become slippery during times of heavy rainfall. The fields on either side of the crossing are overgrown in some places and at a moderate gradient. Access to the level crossing also involves the use of kissing gates. The level crossing is therefore unsuitable for use by wheelchair or pushchair users and is likely to present a number of challenges for any users with mobility impairments.
- 2.36.3 During a nine-day census survey, which included two weekends, a total of 27 pedestrians were recorded using the level crossing with the busiest day being Saturday 16th July 2016 when 6 pedestrians were recorded.
- 2.36.4 Of the 4 people that provided feedback during the first round of public consultation, 1 person indicated that they used the crossing fortnightly and 3 used it rarely. Usage feedback indicated that 3 people used the crossing for leisure purposes and 1 person used it to access other local amenities.
- 2.36.5 Based on location of the crossing point and feedback from public consultation, it was considered that the crossing provides primarily regular leisure access to the local footpath network with some access to local amenities for a relatively small number of users.
- 2.36.6 The proposed alternative route can be seen on drawing number MMD-367516-E48-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.36.7 North of the Wheatsheaf level crossing, approximately 70m of footpath EX/184/19 will be extinguished to prevent a dead end. Users will be diverted east of EX/184/19 on the north side of the railway along a new 2m wide unsurfaced footpath outside of Network Rail land in field

margins before connecting to an existing footway along Church Road. This will allow users to cross the railway at the existing Church Road bridge. Users will continue south of the bridge using the verge to continue along the Station Road, south of the railway, connecting to the point of where existing EX/184/19 connects to Station Road. FP EX/184/19 south of Wheatsheaf level crossing will be extinguished.

- 2.36.8 The total additional length of the diversion route to the east is approximately 725m however, the origin and destination points will affect the overall diversion length for many users.
- 2.36.9 The diversion route uses existing public footpath 48 which lies with a flood zone 3. It is noted that a Public Right of Way (PROW) is a route that anyone has a legal right to use on foot (or by certain modes of transport), they are, however, not considered Essential Infrastructure when considering flood risk. Only Essential Infrastructure (such as major evacuation routes) are required to be kept safe and accessible during times of flood. PROWs are legally required to be kept free from obstructions, however, this does not extend to a natural obstruction such as a flood. If the path becomes blocked by a natural obstruction (e.g. during a time of flood) then the user does not have the right to deviate around the natural obstruction and is advised to retrace their steps and contact their local Countryside Access Team.
- 2.36.10 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.36.11 The footpaths in the area are rural routes, considered to be used for recreational walking purposes. The length of the diversion varies for users, depending on origin and destination.
- 2.36.12 There are wider footpaths links and in particular the estuary area which lies to the east of the level crossing. The proposed diversion is considered to provide a more direct link to this area.
- 2.36.13 Pedestrians wishing to access the long distance footpaths with estuary views, say Footpath 3 Wrabness from the west of the level crossing (Footpath 19 Wrabness) would have the walking distance reduced by approximately 480m and by approximately 180m to reach Footpath 5 Wrabness.
- 2.36.14 The diversion route is approximately 700m longer for users wishing to access the estuary area to the northwest of the level crossing, from south of the railway.
- 2.36.15 It is noted that the coastal public right of way route from Bradfield towards Ramsey is approximately 6500m in length and the majority of footpaths in the area form part of long distance walks.
- 2.36.16 The alternative routes maintain the connectivity to both sides of the railway via rural walking routes of a similar nature to those that already exist on the routes in the area.
- 2.36.17 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The RSA concluded that there were no issues associated with the proposals.
- 2.36.18 Essex County Council undertook a Road Safety Check in March 2017 prior to the TWAO submission and noted the following issues - Vulnerable road users stepping into path of oncoming traffic

*The scheme proposes to use the existing highway along Church Road. There is a short section of the route that has no footway, the verge is relatively high and it is felt that during the summer months pedestrians may have difficulty stepping from the carriageway onto the verge, there will also be issue if opposing pedestrians try to pass along this section and may step into the path of*



*oncoming vehicles leading to injury. It is recommended that vegetation is removed along the southern side of the carriageway and that a regular maintenance regime is employed to ensure that the verge is accessible during the summer months when vegetation may be high.*

- 2.36.19 It is noted that this refers to an issue with the current maintenance of the existing footpath and verge by Essex County Council. Commuted sums where appropriate will be agreed prior to implementation of the level crossing works.
- The scheme proposes to use the existing highway along Church Road. The route crosses an existing ditch. Pedestrians will be unable to cross the ditch to the new footpath, they may slip and fall into the ditch leading to injury.*
- 2.36.20 A piped crossing of this field edge ditch will be provided, with details to be agreed with Essex County Council at detailed design stage.
- 2.36.21 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on Station Road west of the junction with Church Road, which showed an average 2 way daily traffic flow of 135 vehicles and 85th percentile speed of vehicles of 31.5mph where the posted is 40mph.
- 2.36.22 Accident Data for the most recent five-year period was received from Essex County Council. This data confirmed that no accidents had been recorded on the proposed diversion route between the years 2011 and 2015.
- 2.36.23 It is considered that rural road walking is undertaken at present within the area to access the network of footpaths and Station Road is a suitable diversion route. The ATC figures do not indicate that traffic issues are likely to require mitigation measures and therefore the proposals were considered appropriate.
- 2.36.24 The proposals at E48 have been discussed in two workshops with the local highway authority. Officers have objected to the proposals due the diversion length and road walking.
- 2.36.25 Considerations were given following consultation as to whether the use of private land could be justified to remove road walking but it was concluded that the road walking was safe and suitable.
- 2.36.26 In response to the TWAO submission different alternative routes or concepts were suggested by Objectors as part of the TWAO process. These have been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (pages 8, 13, 24 and 28)**.
- 2.36.27 Following consideration of use of the existing routes across the Level Crossings and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.37 E49 Maria Street**

- 2.37.1 The crossing is located at the eastern end of Maria Street and the western end of Ferndale Road, both residential streets in the centre of Harwich town. The nearest properties are within 10m of the crossing. The crossing provides a link between adopted roads and footways.
- 2.37.2 The accessibility of this crossing is very good with fully paved access corridors with gates wide enough to accommodate wheelchairs and mobility scooters and with hand rails to assist those users who may have limited mobility.
- 2.37.3 Access to the crossing on both sides is via flat, paved roads that lead to a ramped and fully accessible crossing.

- 2.37.4 During a nine-day census survey, which included two weekends, 2037 pedestrians and 101 cyclists were recorded at this level crossing. The busiest single day recorded 329 pedestrians and 15 cyclists.
- 2.37.5 Of the 3 people that provided feedback during the first round of public consultation, 2 indicated that they used the crossing daily and 1 person never used the level crossing. Of the 2 users it was stated that 1 person used the level crossing for commuting and 1 person used it to access other local amenities.
- 2.37.6 Based on location of the crossing point and feedback from public consultation, it was considered that the crossing provides regular access to amenities for a high number of users.
- 2.37.7 The proposed alternative route can be seen on drawing number MMD-367516-E49-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.37.8 Existing public rights of way over the level crossing will be extinguished. On the western side of the railway users will be diverted south along an existing footway along Albert Street to Alexandra Road (CCTV) level crossing. To the west of Maria Street level crossing, users will be diverted south along an existing footway along Fernlea Road to Alexandra Road level crossing.
- 2.37.9 The total additional length of the diversion route to the east is approximately 450m however, the origin and destination points will affect the overall diversion length for many users.
- 2.37.10 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA Action	Designers Response
Further consideration should be given to the implementation of measures to further segregate vehicles and pedestrians on Alexandra Road level crossing. This will help improve pedestrian safety and address stakeholders concerns.	It is considered that there is a fully segregated area on the south side of the road for pedestrians using the alternative level crossing. No safety issues have been raised by the RSA or Essex County Council and the level crossing operates for both pedestrians and vehicles in its current layout. However, further consideration could be given at detailed design in modifying fencing at the northeast corner of the crossing to provide additional space for pedestrians and this could be addressed further by Network Rail.

- 2.37.11 The alternative route retains the connectivity to both sides of the railway via the use surfaced footways in an urban environment to access the route across the railway at the Alexandra Road level crossing
- 2.37.12 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The RSA concluded that there were no issues associated with the proposals
- 2.37.13 The proposals at E49 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposals.
- 2.37.14 Following consideration of use of the existing routes across the Level Crossings and the assessment of the proposed alternative in terms of impacts on the environment, users and other

impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.38 E51 Thornfield Wood**

- 2.38.1 The level crossing lies on footpaths EX/152/11 and EX/152/12, and is situated in an area of woodland. Agricultural fields lie outside of the woodland with a small number of residential properties and farm buildings in the area.
- 2.38.2 The accessibility of this crossing is severely limited by the presence of steps, narrow gates and muddy inclines that must be used to access the crossing. These features exclude wheelchair users and those with limited mobility from accessing the crossing. Users with impaired vision may also struggle to safely use this crossing as the layout is not intuitive and there are no audible warnings given for approaching trains.
- 2.38.3 During a nine-day census survey, which included two weekends, a total of 19 pedestrians were recorded using the level crossing with the busiest day being Tuesday 5<sup>th</sup> July when 5 pedestrians were recorded.
- 2.38.4 Of the 16 people that provided feedback during the first round of public consultation, 1 indicated that they never used the crossing, 5 used it rarely, 1 used it daily, 2 used it weekly and 7 used it monthly. Feedback on usage indicates that the crossing provides leisure access to the local footpath network for 13 people with 3 people not provided a usage description.
- 2.38.5 Based on location of the crossing point and feedback from public consultation, it was considered that the crossing provides regular leisure access to the local footpath network for a relatively small number of users.
- 2.38.6 The proposed alternative route can be seen on drawing number MMD-367516-E51-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.38.7 Approximately 30m of footpath EX/152/11 will be extinguished west of the crossing and users will be diverted north along a new 2m wide unsurfaced footpath in field margin, outside of Network Rail land, connecting to an existing road bridge to cross the railway. Users will then continue south along a newly created 2m wide unsurfaced footpath also in field margin outside of Network Rail land, for approximately 440m where it connects to existing footpaths EX152/12 and EX/152/13.
- 2.38.8 The total additional length of the diversion route to the east is approximately 1150m however, the origin and destination points will affect the overall diversion length for many users.
- 2.38.9 The route will lie alongside the railway for part of this diversion, separated by extensive existing landscaping, which would be subject to infrequent passing trains akin to existing use of the level crossing. Overall it is considered that the off road diversion routes are comparable with existing routes in the area. There would be an increase in the existing use of road walking for some users depending on their origin and destination but it is considered that the use of the existing footpath networks requires the use of the rural road network at present and this would continue with the diversion proposals.
- 2.38.10 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.38.11 The footpaths in the area are rural routes, considered to be used for recreational walking purposes. The length of the diversion varies for users, depending on origin and destination. It is

noted that there is a network of separate public rights of way in the area with no obvious long distance route.

- 2.38.12 It is acknowledged that the proposed diversion will add distance to those travelling in an east/west direction across the railway, but will improve north/south movements. Approximately 850m (net gain) of new footpaths will be added to the existing footpath assets in the area.
- 2.38.13 It is anticipated that this will introduce new circular routes for local use which provide off highway footpaths and this will provide a benefit to users.
- 2.38.14 An option to divert users south to the existing road bridge over the railway on Spring Gardens Road was presented at Round 1 consultation which can be seen as the red route shown in **NR32/2 at Tab 2, page 177**. This route was discounted due concerns raised by a Road Safety Audit, the length of road walking compared with the alternative option and a public preference for the alternative route expressed from the feedback following round 1 consultation. It was noted that 19% of responses supported the alternative route as opposed to 6% who supported the red route under discussion.
- 2.38.15 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The RSA concluded that there were no issues associated with the proposals.
- 2.38.16 Essex County Council undertook a Road Safety Check in March 2017 prior to the TWA0 submission and noted the following issues - Vulnerable road users stepping into path of oncoming traffic
- 2.38.17 *The scheme proposes to use the existing highway from points D to E. The verge is very high and there is no opportunity to step out of the path of oncoming vehicles; it was noted on site that there are a lot of agricultural vehicles. Pedestrians unable to step out of the path of oncoming vehicles may be struck leading to injury. This issue will be compounded in the summer months when the verge vegetation will be at its highest. It is recommended that the route is amended from the carriageway and that the headland of the adjacent field is used instead.*
- 2.38.18 With reference to the E51 plan contained within the Essex County Council RSA it is noted that the nomenclature on the supplied plan does not relate to the issue raised.
- 2.38.19 Consideration was given to the road walking and use of road bridge on Jankes Green Lane. Actual speed data shows that the drivers travel at speeds significantly lower than the posted speed limit of 40mph. The ATC data shows the mean speeds of 20.3mph (eastbound) and 21.3 mph (westbound). The 85th percentile speed was not recorded due to the very low speeds.
- 2.38.20 Vehicles number over the 9 days period show a low vehicle use of the road (average 2 way daily traffic flow of 135 vehicles) and the level crossing census data shows a low number of pedestrians. It is considered that the risk of two pedestrians passing each other at the same time as a vehicle passing is a very low risk.
- 2.38.20.1 Automatic Traffic Count data shown in Document **NR32/2 at Tab 1** located on Jupe's Hill to the north of Spring Gardens Road showed an average 2 way daily traffic flow of 135 vehicles and 85th percentile speed of vehicles of 20.3mph where the posted is 40mph.
- 2.38.20.2 Automatic Traffic Count data shown in Document **NR32/2 at Tab 1** located on road east of bridge over rail line west of Jupes Green showed an average 2 way daily traffic flow of 52 vehicles and 85th percentile speed of vehicles of 21.3mph where the posted is 60mph.

- 2.38.21 It is considered that the use of rural road walking as undertaken at present within the area is a suitable diversion route and that the ATC figures do not indicate that traffic issues are likely to require mitigation measures.
- 2.38.22 Accident data for the most recent five-year period was received from Essex County Council. This data confirmed that no accidents had been recorded on the proposed diversion between the years 2011 and 2015.
- 2.38.23 The proposals at E51 have been discussed in two workshops with the local highway authority. Officers have objected to the proposal, as set out above.
- 2.38.24 Following consultations, an amendment was made to the to the footpath route west of the railway to join Jankes Green Lane at an existing field access to avoid the need to remove hedgerows. Whilst the results of the ATC were awaited an alteration to the eastern footpath route was made to place this within woodlands adjacent to the railway in the vicinity of Jankes Green Lane. It was considered that this would assist with visibility issues for pedestrians accessing the road This is shown in the round 2 consultation plan in **NR32/2 at Tab 2, page 297**.
- 2.38.25 With the receipt of the ATC data, the route was assessed to be have very low traffic issues and the route was relocated to avoid the environmental impacts on the woodland.
- 2.38.26 Following consideration of use of the existing routes across the Level Crossings and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.39 E52 Golden Square

- 2.39.1 The level crossing lies on footpath EX/146/21. The surrounding area is predominantly agricultural with a small number of residential properties and farm buildings in the area.
- 2.39.2 The approach to the level crossing consists of a steep woodland trail leading to a stile on either side. Once over the stile, there are difficult steep steps down to the railway line with an uneven gravel path across it. This route would not be accessible for users with mobility or visual impairments, nor parents with pushchairs or small children.
- 2.39.3 During a nine-day census survey, which included two weekends , a total of 3 pedestrians were recorded using the level crossing with the busiest day being Friday 15th July when 2 pedestrians were recorded.
- 2.39.4 Of the 18 people that provided feedback during the first round of public consultation, 5 indicated that they rarely used the crossing, 2 never used it, 1 person used it daily, 2 people used it weekly, 1 person used it fortnightly and 7 people used it monthly. Based on feedback from public consultation, it was noted that the crossing provides leisure access to the local footpath network for 15 of the responses and access to other local amenities for 1 person.
- 2.39.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on infrequently by a relatively small number of people to access the wider footpath network.
- 2.39.6 The proposed alternative route can be seen on drawing number MMD-367516-E52-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.39.7 Footpath EX/152/7 will be extinguished west of the crossing and replaced with a field edge footpath, connecting users to Chappel Road. East of the crossing footpath EX/146/21 will be

extinguished to prevent a dead end. Users of existing footpath EX/152/8 on the west of the railway will connect to a new 2m wide unsurfaced footpath outside of Network Rail land in field margins which will run both north and south.

- 2.39.8 Users will be able to cross the railway south of the crossing via an existing road bridge. Alternatively, if following the new footpath heading north on the west side of the railway, this will connect to existing footpath EX/146/12 and users will be able to cross using an existing road bridge connecting into existing footpath EX146/15 on the east. Should users continue south they will be directed along an existing carriageway alongside Fordham Road before connecting users to either footpath EX/146/35 east or continue along Fordham Road.
- 2.39.9 The total additional length of the diversion route to the east is approximately 1575m however, the origin and destination points will affect the overall diversion length for many users.
- 2.39.10 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.39.11 The footpaths in the area are rural routes, considered to be used for recreational walking purposes. The length of the diversion varies for users, depending on origin and destination. It is noted that there is a network of separate public rights of way in the area with no obvious long distance route.
- 2.39.12 It is acknowledged that the proposed diversion will add distance to those wishing to travel in an east/west direction across the railway, but will improve north/south movements. Approximately 1100m (net gain) of new footpaths will be added to the existing footpath assets in the area. The route will lie alongside the railway for part of this diversion, separated by extensive existing landscaping, which would be subject to infrequent passing trains akin to existing use of the level crossing. Overall it is considered that the off road diversion routes are comparable with existing routes in the area. There would be an increase in the existing use of road walking for some users depending on their origin and destination but it is considered that the use of the existing footpath networks requires the use of the rural road network at present and this would continue with the diversion proposals.
- 2.39.13 It is anticipated that the proposed diversions will introduce new circular routes for local use which provide off highway footpaths and this will provide a benefit to users.
- 2.39.14 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The RSA concluded that there were no issues associated with the proposals.
- 2.39.15 Essex County Council undertook a Road Safety Check in March 2017 prior to the TWAO submission and noted the following issues - vulnerable road users stepping into path of oncoming traffic
- 2.39.16 *The scheme proposes to use the existing highway along Fordham Road. The verge is none existent and the route is heavily tree-lined and has mature hedges. There is no opportunity to step out of the path of oncoming vehicles, and it was noted on site that there are a lot of agricultural vehicles. Pedestrians unable to step out of the path of oncoming vehicles may be struck leading to injury. This issue will be compounded in the summer months when the verge vegetation will be at its highest. It is recommended that the route is amended from the carriageway and that the headland of the adjacent field is used instead.*
- 2.39.17 It is considered that the use of rural road walking as undertaken at present within the area is a suitable diversion route and that the ATC figures shown in Appendix **Error! Reference source not found.** do not indicate that traffic issues are likely to require mitigation measures.

- 2.39.18 Automatic Traffic Count data shown in Document **NR32/2 at Tab 1** located on the road east of bridge over rail line west of Jupes Green showed an average 2 way daily traffic flow of 52 vehicles and 85th percentile speed of vehicles of 21.3mph where the posted is 60mph.
- 2.39.19 Automatic Traffic Count data shown in Document **NR32/2 at Tab 1** located on Fordham Road south of Sergeant's Farm and north of Ball's Chase, south of Mount Bures showed an average 2 way daily traffic flow of 116 vehicles and 85th percentile speed of vehicles of 37.8mph where the posted is 60mph.
- 2.39.20 Verges are available for use along significant parts of the route but it was considered that road walking would be indicated at design freeze to show the 'worst case'. From an examination of the public footpath network it is noted that pedestrians already currently use Fordham Road as part of the interconnectivity of the network. On this basis it is considered that amendments to the proposals are not required.
- 2.39.21 The proposals at E52 have been discussed in two workshops with the local highway authority. Officers have objected to the proposal, as set out above.
- 2.39.22 Changes to the proposals have been made as a result of consultation feedback. The proposal presented at the first round of consultation is shown in **NR32/2 at Tab 2, page 179** and the route was a diversion to the road bridge north of the level crossing. Following consultation footpath EX/152/7 on the west side of the railway was reported to be not in use and that pedestrians used the field edge route to the approximately 120m to the north. As a consequence, the proposals were amended to align with the reported actual use of the footpaths in the area. This is shown in the round 2 consultation plan in **NR32/2 at Tab 3, page 299**. Following the second round of consultation it was noted that users had raised issues regarding the length of the diversion routes and it was considered that users heading south from the level crossing would be impacted on to a greater extent. As a mitigation measure an additional field margin footpath was included in the final proposals on the west side of the railway which would run south to utilise the road bridge across the railway on Jankes Green Lane.
- 2.39.23 As the final route was considered to be significantly different from that shown a round 2, a further information update was issued to parties including the public and statutory consultees and this is shown in **NR32/2 at Tab 4, page 354**. No changes were made following this exercise.
- 2.39.24 Following consideration of use of the existing routes across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.40 E54 Bures

- 2.40.1 The level crossing lies on footpath EX/70/30 is situated on the south-eastern edge of the village of Bures. Residential properties are located within 10m of the crossing on the east and northwest of the level crossing. The surrounding area to the southwest is predominantly agricultural.
- 2.40.2 The accessibility of this site is severely limited by the presence of stiles and narrow tracks to access the crossing. These exclude wheelchair users and many people with limited mobility from using the crossing. The accessibility of the approaches to this crossing are similarly inaccessible to all users given that they are natural, informal tracks.

- 2.40.3 During a nine-day census survey, which included two weekends , a total of 34 pedestrians were recorded using the level crossing with the busiest day being Wednesday 13th July 2016 when 15 pedestrians were recorded.
- 2.40.4 Of the 22 people that provided feedback on E54 during the first round of public consultation, 6 indicated that they rarely used the crossing, 1 never used it, 3 people used it daily, 8 people used it weekly, 1 person used it fortnightly and 3 people used it monthly. The level crossing was used for leisure purposes by 13 people, 2 people used it to access local amenities, 3 used it to access their own property and 1 person for commuting with 3 people not providing a usage feedback.
- 2.40.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on a regular basis by a relatively small to moderate number of people to access the wider footpath network that lies either side of the village and for access to local amenities and properties.
- 2.40.6 The proposed alternative route can be seen on drawing number MMD-367516-E54-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.40.7 Footpath EX/70/30 will be extinguished on the west side of the crossing to prevent the creation of a dead end. West of the crossing users will be diverted north along an existing carriageway and footways along Colne Road before being diverted east to cross the railway using the existing underbridge on Station Hill. A new section of asphalt footway will be provided east of the bridge and a crossing point added to allow users to cross Station Hill. Here users would follow an existing footway south along The Paddocks road before connecting to the existing footpath EX/70/30. This would allow users to also connect to existing footpath EX/70/32 east of the crossing, heading further east into Bures village.
- 2.40.8 The total additional length of the diversion route to the east is approximately 340m however, the origin and destination points will affect the overall diversion length for many users.
- 2.40.9 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.40.10 The existing level crossing footpath leads to a wider connectivity on long distance public rights of way the west and east of the level crossing which provides opportunities for recreational use. To the west public rights of way can be used for over 1600m. To the north public rights of way in the vicinity of the level crossing in Bures link to the village of Lamarsh over 2000m away. To the southeast public rights of way in the vicinity of the level crossing in Bures link to the village of Wormingford over 4000m away.
- 2.40.11 Access to the public rights of way and public roads on the east and west of the level crossing, with associated recreational use opportunities and requirement for delivery of local community correspondence, are proposed to be maintained via Station Road bridge beneath the railway.
- 2.40.12 Access to the public rights of way and public roads on the east and west of the level crossing, with associated recreational use opportunities and requirement for delivery of local community correspondence will be maintained via Station Road bridge beneath the railway.
- 2.40.13 A Road Safety Audit will be undertaken on the route using and any issues will be addressed during detailed design.
- 2.40.14 It is noted that use of the footway on the north side of the road is currently used by pedestrians access the road bridge from all direction and this existing use will continue, albeit with an additional length of footway to improve the current usage. Publicly available accident data



shows that there have been no pedestrian casualties on the roads used as part of the diversion from 1999-2016.

- 2.40.15 The proposals at E54 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposals.
- 2.40.16 Consultation responses highlighted concerns regarding the part of the diversion beneath the Station Road bridge where it was identified that there was no footway at present on the east side the bridge. As a result, the final design proposal submitted with the TWAO provides an additional footway over a short length in this location to provide continuity of the existing footway across the verge at Water Lane junction and towards The Paddock. The width of the new footway would match the existing footway. Initial discussions with Essex County Council have indicated that they support this proposal. There are no proposals to amend the footway beneath the existing bridge which is maintained by Essex County Council. There will be no changes to the headroom. This work, when progressed through further stages of detailed design, would be subject to an independent road safety audit and approvals by Essex County Council.
- 2.40.17 Discussions with the local authority noted that there was an alternative underpass approximately 200m south of the level crossing. This was not taken forward due to impacts on private high value amenity properties and the lack of land for the route.
- 2.40.18 Following consideration of use of the existing routes across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.41 E56 Abbots**

- 2.41.1 Footpaths 28 and 42 to the south of the railway and footpath 27 to the north meet at Abbots level crossing. The majority of the surrounding area is agricultural. Ardleigh village lies approximately 250m to the north west. Much of Ardleigh village is within a conservation area, the boundary of which extends to the railway and is immediately adjacent to the crossing.
- 2.41.2 The level crossing has gates on either side. The approach to the crossing is uneven with some overgrown vegetation. The crossing is surrounded on all sides by agricultural land. The crossing itself is decked with anti-slip boards.
- 2.41.3 At the time of the assessment Network Rail advised that the Abbots level crossing was temporarily closed. No census surveys were subsequently commissioned for Abbots level crossing.
- 2.41.4 Of the 8 people that provided feedback on E56 during the first round of public consultation, 2 indicated that they rarely used the crossing, 1 that they used it fortnightly and 2 used it monthly and 2 never used it. Five of the responses stated that they used it for leisure purposes and 1 person used the crossing to access other local amenities and there were 2 other uses. It is noted that the level crossing was actually closed at the time of the consultation.
- 2.41.5 Whilst there is no census data to assist with assessment of the likely level of usage of the crossing, based on the feedback from consultation and the location of the crossing, it is considered that it would be mainly be used for leisure access to the local footpath network and potentially access to premises.
- 2.41.6 The proposed alternative route can be seen on drawing number MMD-367516-E56-GEN-005, which can be found in Appendix F of core document **NR26**.

- 2.41.7 Users of Footpath 42 will be diverted along footpath 49 then north along the existing footway on Station Road to cross the railway over the existing Ardleigh road level crossing, after which users will then use existing footway on Station Road and Church View north into Ardleigh.
- 2.41.8 Users of footpath 27 (north of the level crossing), would be diverted on a newly created 2m wide unsurfaced footpath in field margins outside of Network Rail land south. The existing route of footpath 27 will be extinguished. Users heading east from the level crossing will then be diverted northeast along a newly created 2m wide unsurfaced footpath in field margins outside of Network Rail land before joining Little Bromley Road to cross the railway at the associated road bridge. Users will continue east along Little Bromley Lane and will then connect via a newly created 2.0m wide unsurfaced footpath in field margins outside of Network Rail land south before joining existing footpaths 28 and 42. The sections of footpaths 28 and 42 between the level crossing and the new footpath to the south of the railway will be extinguished.
- 2.41.9 Due to the designation of the area as an Ancient Monument the wayfinding signs will be erected on existing features to remove the need for ground disturbance.
- 2.41.10 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.41.11 It is considered that most of the ongoing footpaths and desire routes lie to the west, southwest and northwest of the level crossing which includes the village centre which is northwest of the level crossing. As the proposed southern footpath from Footpath 28 to Footpath 42 (and onto Footpath 29) would have introduced a long diversion for walkers heading to footways on the A147 north of the level crossing, it was decided to mitigate this northern route with an additional footpath to the road bridge north of the level crossing.
- 2.41.12 Although this proposed footpath does provide flexibility for users depending on the origin and destination, it is not considered to be the route the most users will take to cross the railway. It is considered that users of Footpath 42 will divert along Footpath 49. Users of Footpath 28 will have a choice of diverting north or south.
- 2.41.13 It is considered that the Station Road/Colchester Road junction would be a suitable location to consider as the focus of pedestrian destinations.
- 2.41.14 Pedestrians heading from Station Road/Colchester Road junction to Footpath 42 via Ardleigh road level crossing and Footpath 49 would have an additional approximately 30m to walk.
- 2.41.15 Pedestrians heading from Station Road/Colchester Road junction to Footpath 28 via Ardleigh road level crossing and Footpath 49 would have an additional approximately 350m to walk.
- 2.41.16 Should users choose to use the northerly footpath via the existing road bridge they would have an additional approximately 300m to walk.
- 2.41.17 It is not considered that users of Footpath 42 would undertake a northerly diversion via the road bridge as a preference to cross the railway, although they may wish to do so to make use of the additional amenity of the proposed footpaths.
- 2.41.18 The footpaths in the area are rural routes, considered to be used for recreational walking purposes. The length of the diversion varies for users, depending on origin and destination.
- 2.41.19 The length of the diversions are longer than the route over the level crossing but are not considered to be an undue inconvenience due to the long distance nature of the ongoing footpaths on the area. It is not considered the diversion routes are significantly longer for the pedestrian desire lines.

- 2.41.20 The philosophy of the diversions proposals have remained to divert users to the road bridge to the northeast and the road level crossing to the southwest. However, options were considered at round 1 public consultation that considered greater length of road walking on Colchester Road north of the level crossing and these are shown as the blue and red route in **NR32/2 at Tab 2, page 183**. The blue route also included an additional field margin footpath adjacent to Little Bromley Lane. These options were discounted as a result of public objection to the amount of road walking and with an issue highlighted by an independent Road Safety Audit.
- 2.41.21 To reduce the loss of amenity the proposals were amended to use the green route north of the railway on the west side and the red route north of footpath 28 on the east side. This would mitigate the potential loss of amenity by placing the footpath adjacent to the railway on the east side.
- 2.41.22 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The RSA concluded that there were no issues associated with the proposals.
- 2.41.23 Essex County Council undertook a Road Safety Check in March 2017 prior to the TWAO submission and noted the following issues - Vulnerable road users stepping into path of oncoming traffic
- The scheme proposes to use the existing highway along Little Bromley Road. There is a short section of the route that has no footway, the verge is relatively high and it is felt that during the summer months pedestrians may have difficulty stepping from the carriageway onto the verge. There will also be issue if opposing pedestrians try to pass along this section and may step into the path of oncoming vehicles leading to injury. It is recommended that vegetation is removed along the southern side of the carriageway and that a regular maintenance regime is employed to ensure that the verge is accessible during the summer months when vegetation may be high.*
- 2.41.24 It is noted that this refers to an issue with the current maintenance of the existing footpath and verge by Essex County Council. Commuted sums where appropriate will be agreed prior to implementation of the level crossing works.
- 2.41.25 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on Little Bromley Road on the bridge over railway south of Harwich Road, which showed an average 2 way daily traffic flow of 355 vehicles and 85th percentile speed of vehicles of 32.8mph where the posted is 30mph. The proposals were considered appropriate when the traffic data was considered on this section of the route
- 2.41.26 The proposals at E56 have been discussed in two workshops with the local highway authority. Officers submitted an objection in response to the TWAO submission but following further correspondence have withdrawn their objection to the proposals.
- 2.41.27 Following consideration of use of the existing routes across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.42 E57 Wivenhoe Park

- 2.42.1 The level crossing lies on footpath EX/127/236 and there are both public footpath rights and private vehicle rights to use the level crossing. The land immediately surrounding the crossing is predominantly agricultural, however the wider area is well developed. The University of Essex

has significant buildings to the east and north of the level crossing, the nearest area being approximately 300m to the northeast.

- 2.42.2 The River Colne lies approximately 80m to the west and runs parallel to the railway. The land bounded by the railway and the river is used as a local nature reserve and agricultural grazing land.
- 2.42.3 Footpath EX/127/130, which is also a permissive cycle route, runs parallel to the railway approximately 60m to the west along the top of an existing flood bund, crossing a sluice gate where Salary Brook meets the River Colne. On the east of the railway, the crossing is accessed via an uneven track from Boundary Road.
- 2.42.4 There is no obvious track wide enough for farm vehicles on the west side of the railway, so it is unclear exactly how the land is accessed and maintained once vehicles are over the crossing. The Landowner has confirmed that he accesses all areas freely in his vehicles without following specific routes.
- 2.42.5 During a nine-day census survey carried out in June 2015 a total of 554 pedestrians and 345 cyclists were recorded using the level crossing with the busiest day being Tuesday 30th June 2015, when 95 pedestrians and 78 cyclists were recorded.
- 2.42.6 The private user of Wivenhoe Park LX indicated that the crossing was used by the following vehicles on the following basis:
- a. Monthly - Tractors with trailers of large attachments
  - b. Seasonally - Single tractors
  - c. Infrequent Use:
    - i. Car
    - ii. Motorcycle/ Quad-bike/ Moped
    - iii. Van/ small lorry up to 3.5 tonnes
    - iv. Van/ lorry over 3.5 tonnes
    - v. Trailers over 750kg
    - vi. Tracked vehicles with/without trailers or large attachments
- 2.42.7 Based on the location of the crossing point, usage figures and feedback from public consultation, it was considered that the public footpath crossing is very well used by a large number of people. Based on feedback from the private user, the private vehicle crossing is used occasionally to allow the landowner to access their property and manage the land to the south west of the railway as part of a land stewardship scheme.
- 2.42.8 The proposed alternative route can be seen on drawing number MMD-367516-E56-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.42.9 Existing public rights will remain for users of footpath EX/127/236. Following a scoping study, a DIA was not considered necessary at this crossing as public rights would not be amended.
- 2.42.10 Private vehicular rights of way will be extinguished. Private vehicles will be diverted north and west from the level crossing on existing public highways for approximately 1.75km before crossing the railway at the existing highway bridge on Eastern Approach. On the west of the railway, users would be diverted along an existing public road to the waterfront, where vehicles will join footpath EX/127/130 for approximately 350m to the sluice gate where the private vehicles will use an existing ramp to come off the footway/flood bund into the local nature reserve.

- 2.42.11 The 350m section of footpath is surfaced for cycle use and maintained by Sustrans. This section of the route currently provides access for the Environment Agency to maintain their sluice screens.
- 2.42.12 An unsurfaced route is provided through the local nature reserve to allow the landowner to access his land from the north west.
- 2.42.13 The alternative route provides access for vehicles of the nature and frequency required to maintain the land on the west side of the railway. The Environment Agency currently use this section of the cycle track to access and maintain their equipment at the sluice gate at the mouth of Salary Brook. It is considered that vehicles of a similar nature could be used to maintain the land.
- 2.42.14 The small number of additional vehicles on the cycle track each year are an additional hazard for the existing users of the cycle track but it is considered that the risk of harm to users is very low and comparable with the existing levels of risk to the footpath users.
- 2.42.15 Whilst this proposal does not transfer pedestrians onto the public highway, there will be a requirement for the private user vehicles to travel along a footpath that is also a permissive cycletrack. Therefore, this proposal was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team.
- 2.42.16 The RSA identified the following problem
- It is proposed that diverted agricultural vehicles will access land to the west of the railway via Lightship Way and the River Colne waterfront path. There was a notable presence of vulnerable road users in the vicinity of Lightship Way whilst the River Colne path is for cyclists and pedestrians. Diverting agricultural vehicles through this residential area and onto the recreational riverside path may increase the risk of collisions between large vehicles and vulnerable road users.*
- 2.42.17 The Audit recommended that agricultural vehicles are not diverted along this route.
- 2.42.18 Design Team responded to say that further discussions would be held with landowners to determine the exact nature of vehicles that would use the route.
- 2.42.19 The design team considered that large vehicles currently use the route for maintenance of the footpath and Salary Brook sluice screens without compromising the safety of pedestrians, and they considered that the additional usage by the landowner at the frequency that the level crossing is used would also be manageable to maintain the footpath as a safe route for pedestrians and cyclists.
- 2.42.20 The proposals at E57 Wivenhoe Park have been discussed in 2 workshops with the local highway authority (Essex County Council). Officers had no objections to the proposed route. Representatives from Colchester Borough Council attended the workshops and had no objections to the proposals.
- 2.42.21 Following deposition of the order, Colchester Borough Council have confirmed that they do not object to the proposals subject to satisfactory negotiations being held for an alternative right of access across CBC's land and details being agreed to minimise damage to their land and property.
- 2.42.22 Sustrans currently have a licence to access the cycle track via the level crossing and have objected to the proposals on the basis that they would not be able to access the track for maintenance purposes.

- 2.42.23 Discussions are ongoing with Mr Gooch, the landowner of the agricultural land to the west of the crossing, who has objected to the proposal on the basis that he will not be able to maintain his land in the manner he wishes to in the future.
- 2.42.24 The alternative route provides access for vehicles of the nature and frequency required to maintain both the land and the cycle track. The Environment Agency currently use this route to access and maintain their equipment at the sluice gate at the mouth of Salary Brook. It is considered that vehicles of a similar nature could be used to maintain the land and the cycle track.
- 2.42.25 Following consideration of use of the existing routes across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.43 H01 Trinity Lane

- 2.43.1 Trinity Lane is a public road that runs from High Street in the west across the Trinity Lane manned level crossing to give access to Lea Valley Park to the east of the crossing. Public footpath Cheshunt 054 commences at the end of Trinity Lane, immediately east of the railway and runs in an easterly direction through the Lea Valley Park. The land to the north of the footpath is part of the Lee Valley Ramsar and SPA and Turnford and Cheshunt Pits SSSI. The designated area is located approximately 80m from the crossing at its nearest point.
- 2.43.2 The land to the west of the railway is occupied by densely populated residential housing, with the nearest property within 20 of the crossing. The land immediately east of the railway comprises allotments both to the north east and south east, beyond which is the park.
- 2.43.3 The accessibility of this crossing is generally good with paved access routes leading from the housing estates on Trinity Lane and access gates that should be wide enough for most wheelchairs and mobility scooters. The pathways on the other side of the line may pose a challenge for users with limited mobility for which the uneven ground and puddles of both mud and water may make access difficult.
- 2.43.4 An existing count undertaken in 2014 for a nine-day period between 5th and 13th July was assessed to provide good quality data, and as a result no new census surveys were commissioned. During the eight-day survey period, a total of 6141 pedestrians and 31 cyclists were recorded using the level crossing with the busiest day being Sunday 6th July 2014 when 1027 pedestrians and 16 cyclists were recorded. Vehicle usage of this level crossing was also recorded through this survey with a total of 20 vehicles being recorded over the nine-day period with a maximum of four cars using the crossing on Wednesday 9th July 2014.
- 2.43.5 Of the 9 people that provided feedback on H01 during the first round of public consultation, 6 indicated that they used the crossing daily, 2 that they used it weekly, 1 that they used it fortnightly. Of the 9 people that provided positive feedback, 1 indicated that the crossing was used to access their own property, 5 for leisure use, 2 use of the level crossing for commuting and 1 person stated 'other' use.
- 2.43.6 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on regularly by a very high number of people to mainly to access the wider area but also for access to properties.
- 2.43.7 The proposed alternative route can be seen on drawing number MMD-367516-H01-GEN-005, which can be found in Appendix F of core document reference **NR26**.

- 2.43.8 The Trinity Lane level crossing will be downgraded to a public bridleway level crossing with private vehicular rights granted to authorised users. Pedestrians can make use of the existing stepped footbridge immediately adjacent to the crossing.
- 2.43.9 Following a scoping study, a DIA was not considered necessary at this crossing as pedestrian access is maintained at the existing crossing location.
- 2.43.10 Although there is a public road over the level crossing this road is a dead end on the east side of the level crossing. Vehicle users will be granted private rights to access amenities like the allotments on the east side of the railway. Non-motorised users will be unaffected.
- 2.43.11 The proposals at H01 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposal.
- 2.43.12 Following consideration of use of the existing routes across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.44 H02 Cadmore Lane

- 2.44.1 Public footpath Cheshunt 009 commences at the end of Cadmore Lane, immediately west of the railway and runs in an easterly direction through the Lea Valley Park. The land to the north of the footpath is part of the Lee Valley Ramsar and SPA and Turnford and Cheshunt Pits SSSI. The designated area is located approximately 80m from the crossing at its nearest point and encompasses numerous large water bodies, the nearest of which is approximately 100m to the east. The River Lea is located approximately 90m to the east. The land to the west of the railway is occupied by an industrial area/trading estate, beyond which is densely populated residential housing. The nearest residents are located approximately 180m west of the crossing, on Cadmore Lane.
- 2.44.2 The accessibility of the original level crossing was limited by the lack of a separate gate for the pedestrian crossing. This crossing had only one gate that covered both the vehicle and pedestrian crossings, this meant that pedestrians seeking to cross would have to open the full width gate in order to do so, exposing them to the active railway line for longer than was necessary. This would have been an even greater risk for wheelchair users or those with limited mobility. The road surfaces may also have caused accessibility problems for certain users. The footbridge that has replaced this level crossing is fully accessible, with ramped access routes on both sides, and a smooth floor surface designed to provide grip to both walkers and wheelchair users.
- 2.44.3 The level crossing is closed and as there is a ramped footbridge in place, collection of census data was not considered necessary for the level crossing.
- 2.44.4 No feedback on H02 was received during the first round of public consultation.
- 2.44.5 The proposed alternative route can be seen on drawing number MMD-367516-H02-GEN-005, which can be found in Appendix F of core document reference **NR26**.
- 2.44.6 All existing public and private rights over the level crossing will be extinguished. On the west side of the railway line, users will be diverted to an existing accessible footbridge approximately 50m south of the existing crossing and continue onto footpath Cheshunt 009. Level crossing users coming from the east along footpath Cheshunt 009 will divert south onto the existing accessible footbridge and continue north onto Cadmore Lane.



- 2.44.7 Following a scoping study, a DIA was not considered necessary as the current crossing is already closed and a ramped footbridge is already in place. Pedestrian accessibility will not therefore be altered at the current location.
- 2.44.8 Connectivity is retained via the footbridge.
- 2.44.9 The proposals at H02 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposal.
- 2.44.10 Following consideration of use of the existing route across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.45 H03 Slipe Lane**

- 2.45.1 Public footpath Cheshunt 022 is located on Slipe Lane, a public road that passes through a dense residential area to the west of the railway and into Lee Valley Park on the east side of the railway. The Lee Valley Ramsar and SPA and Turnford and Cheshunt Pits SSSI is located approximately 350m south of the crossing.
- 2.45.2 The approaches are paved. There are kissing gates on one side which may restrict access to wheelchair users. Nevertheless, accessibility is good at this site.
- 2.45.3 At the time of the assessment Network Rail advised that the Slipe Lane level crossing was closed. No surveys were subsequently commissioned for Slipe Lane level crossing.
- 2.45.4 1 person provided feedback on H03 during the first round of public consultation who stated that they never used the level crossing.
- 2.45.5 The proposed alternative route can be seen on drawing number MMD-367516-H03-GEN-005, which can be found in Appendix F of core document reference **NR26**.
- 2.45.6 The existing private vehicular rights will be extinguished and existing public footpath rights will be retained. Motorised users will be diverted northwards along High Road to the existing Wharf Road level crossing, approximately 400m north of Slipe Lane crossing. The route currently used to access Kings Weir Cottage will be formalised with rights, providing private vehicular access from Wharf Road level crossing to the lakes east of Slipe Lane.
- 2.45.7 Following a scoping study, a DIA was not considered necessary at this crossing as pedestrian access is maintained at the existing crossing location.
- 2.45.8 The diversionary route provides continued access to both sides of the railway for motorised users although the length of the route has been increased.
- 2.45.9 The proposals at H03 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposal.
- 2.45.10 Following consideration of use of the existing routes across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.



## 2.46 H04 Tednambury

- 2.46.1 Public footpath Sawbridgeworth 003 is an unsurfaced footpath in a rural area surrounded by agricultural fields, which runs from the A1184 in the west, approximately 250m north west of the crossing and meeting the River Stort approximately 400m south east of the crossing.
- 2.46.2 A drain crossing the railway immediately adjacent to the crossing. The River Stort is located approximately 100m north east of the crossing, beyond which is Little Hallingbury Marsh SSSI.
- 2.46.3 The accessibility of this crossing is limited by the presence of stiles, narrow kissing gates and overgrown, grassy pathways and inclines that would significantly undermine the ability of those with limited mobility or those who use a wheelchair to access the crossing. This crossing is entirely inaccessible to wheelchair users or those with pushchairs.
- 2.46.4 During a nine-day census survey, which included two weekends, a total of 24 pedestrians were recorded using the level crossing with the busiest day being Sunday 17th July 2016 when 7 pedestrians were recorded.
- 2.46.5 1 person provided feedback on H04 during the first round of public consultation, and stated that they used it monthly for leisure purposes.
- 2.46.6 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on regularly by a relatively small number of people to access the wider footpath network.
- 2.46.7 The proposed alternative route can be seen on drawing number MMD-367516-H04-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.46.8 Existing public rights of way over the level crossing will be extinguished. To the west of the level crossing, users will be diverted south via the creation of a new 2m wide unsurfaced public footpath within Network Rail land, which crosses the railway via an existing private track, approximately 150m south of the existing crossing. The new footpath will require the construction of a timber footbridge (<5m in length), and where it connects to the existing private track to the south of the crossing via new timber board steps.
- 2.46.9 The new footpath will continue along a field margin for approximately 420m, before joining footpath EX/37/22. The section of footpath Sawbridgeworth 003 to the east of the level crossing will be extinguished up to footpath EX/37/22, approximately 400m in length. Users will then make use of the newly created footpath to the south.
- 2.46.10 The length of the diversionary route is approximately an additional 180m.
- 2.46.11 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.46.12 The public rights of way lie generally run to the east of the level crossing and there are north/south links as well on the east side of the railway. The public rights of way have a high degree of connectivity and form long distances routes in the area. It is possible to undertake a route of over 5500m to the east utilising the footpath over the level crossing.
- 2.46.13 Connectivity to the east and west of the railway is maintained with an increased length of approximately 180m.
- 2.46.14 Automatic Traffic Count data shown in Document **NR32/2 at Tab 1** located on Cambridge Road east of A1184 south of Spellbrook showed an average 2 way daily traffic flow of 90 vehicles and 85th percentile speed of vehicles of 24.2mph where the posted is 60mph.

- 2.46.15 Other options were presented at round 1 consultation which can be seen in **NR32/2 at Tab 2, page 193.**
- 2.46.16 The proposals at H04 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposal.
- 2.46.17 Following consideration of use of the existing routes across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.47 H05 Pattens, H06 Gilston and H09 Fowlers**

- 2.47.1 Due to their proximity, these three level crossings have been considered together when developing an alternative diversion route.
- 2.47.2 At H05 a public footpath Thorley 022 runs across it in a south easterly direction from the A1184, approximately 100m to the west of the crossing and through the Thorley Wash Nature Reserve on the eastern side of the railway. The nature reserve is designated as the Thorley Flood Pound SSSI, the western boundary of which is along the railway line. There are several drains and small watercourses within the SSSI, one of which is located immediately east of the crossing. The River Stout is located approximately 180m to the east. The crossing is located in an area of flood zone 2, immediately adjacent to an area of flood zone 3. There are a small number of residential properties along the A1184 near the crossing, the nearest of which are approximately 100m to the south west and 140m to the west.
- 2.47.3 The accessibility of this crossing is very poor as the presence of several stiles, uneven passageways and steep, grassy inclines means that those with limited mobility or who use a wheelchair would be unable to access this crossing.
- 2.47.4 At H06 a public footpath Thorley 007 runs across it from Thorley Street, approximately 100m west of the crossing, through a small residential area and into Thorley Wash Nature Reserve located to the east of the railway. There is a large pond on the west side of the railway, approximately 50m south west of the crossing. Thorley Flood Pound SSSI is located approximately 150m south of the crossing and River Stort is approximately 220m to the east. The crossing is located within an area of flood zone 2. There are a small number of residential and commercial properties along Thorley Street, the nearest of which is approximately 50m west of the crossing. The wider surrounding area is largely agricultural.
- 2.47.5 The accessibility of this crossing is poor, with the presence of stiles and steps to access the crossing reducing the ability of those with limited mobility to use the crossing and excluding those who use wheelchairs or mobility scooters.
- 2.47.6 H09 is a private crossing is situated approximately 100m east of Thorley Street and is adjacent to the Thorley Flood Pound SSSI located immediately east of the railway. There are a small number of residential and commercial properties along Thorley Street, the nearest of which is approximately 20m south west of the crossing. The wider surrounding area is largely agricultural. There is a large pond on the west side of the railway, approximately 20m north west of the crossing. Thorley Flood Pound SSSI is located approximately 80m south east of the crossing and River Stort is approximately 250m to the east.
- 2.47.7 The approach to the crossing is through fields. The crossing itself is flat and appears relatively accessible. There is a gate on one side of the crossing.

- 2.47.8 During a nine-day census survey at H05 Pattens, which included two weekends, a total of 109 pedestrians and 5 cyclists were recorded using the level crossing with the busiest day being Sunday 17th July 2016 when 26 pedestrians were recorded.
- 2.47.9 During a nine-day survey at H06 Gilston, which included two weekends, a total of 51 pedestrians were recorded using the level crossing with the busiest day being Saturday 16th July 2016 when 19 pedestrians were recorded.
- 2.47.10 Of the 4 people that provided feedback on H05 during the first round of public consultation, 1 indicated that they used the crossing daily, used it monthly and 2 users rarely used the crossing. Of the 4 people that provided feedback, all of the responses indicated leisure use of the level crossing.
- 2.47.11 Of the 2 people that provided feedback on H06 during the first round of public consultation, 1 indicated that they used the crossing monthly and 1 user rarely used the crossing. Both of the responses indicated leisure use of the level crossing.
- 2.47.12 As Fowlers is a private user worked crossing, a new census survey was not considered necessary at this location and it was agreed with Network Rail that the Private Users for this level crossing would instead be issued with a questionnaire. This questionnaire sought to capture not only the average use of the level crossing but also whether there were any times of the year when usage peaked, such as during the harvesting season for example. The Private Users of Fowlers did not provide a response to the questionnaire.
- 2.47.13 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the H06 crossing is used on regularly by a relatively small number of people to access the wider footpath network. It is considered that the H05 crossing is used on regularly by a moderate number of people to access the wider footpath network.
- 2.47.14 The proposed alternative routes can be seen on drawing numbers MMD-367516-H05-GEN-005, MMD-367516-H06-GEN-005 and MMD-367516-H09-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.47.15 At H05 the existing public rights of way over the level crossing will be extinguished. To the west of the level crossing, footpath Users of footpath Thorley 010 heading east towards Pattens level crossing will be diverted onto a newly created 2m wide unsurfaced public footpath running north and then east, approximately 300m in length , and users will then cross the railway via an existing underpass. New soffit boarding will be installed to create a suitable footpath route through the underpass beneath the railway. The new footpath will continue north, on the east side of the railway for approximately 150m before heading south through the local nature reserve, and connect to footpath Thorley 022 after approximately 410m.
- 2.47.16 At H06 existing public rights of way over the level crossing will be extinguished. A section of the existing PRoW Thorley 007 will be extinguished between Thorley Street and the level crossing. To the west of the railway, users will be diverted south onto Thorley Street for approximately 225m, and cross the railway using a newly created 2m wide unsurfaced footpath, which makes use of an existing underpass below the railway. New soffit boarding will be installed to create a suitable footpath route through the underpass beneath the railway. Users will then continue north along a 250m stretch of newly created footpath, which re-joins footpath Thorley 007.
- 2.47.17 At H09 the existing private rights over the level crossing will be extinguished. No vehicular diversion would be provided as part of this project. Private non-motorised users would cross the railway by heading southbound along the existing footway on Thorley Street. At a point approximately 100m north of the roundabout where St James Way meets the A1184, a new

footpath would be created which runs in an easterly direction towards an existing underpass beneath the railway. This new footpath will be 2m wide and unsurfaced. New soffit boarding will be installed to create a suitable footpath route through the underpass beneath the railway.

- 2.47.18 The diversion proposals from H06 and H06 send users to the existing underpass located between the two level crossings. The additional length of the diversion from H05 is approximately 650m although the length will vary depending on origin and destination. The additional length of the diversion from H06 is approximately 1150m.
- 2.47.19 It is noted that a Public Right of Way (PRoW) is a route that anyone has a legal right to use on foot (or by certain modes of transport), they are, however, not considered Essential Infrastructure when considering flood risk. Only Essential Infrastructure (such as major evacuation routes) are required to be kept safe and accessible during times of flood. PRoWs are legally required to be kept free from obstructions, however, this does not extend to a natural obstruction such as a flood. If the path becomes blocked by a natural obstruction (e.g. during a time of flood) then the user does not have the right to deviate around the natural obstruction and is advised to retrace their steps and contact their local Countryside Access Team.
- 2.47.20 Following a scoping study although the proposed diversion route requires users to walk further, as the current route has stiles and steps, it is not felt that overall pedestrian accessibility will be reduced as a result of the proposed work. There a DIA was not considered necessary.
- 2.47.21 The level crossings lie within a network of very long distance footpaths which provide connectivity and leisure routes between local villages.
- 2.47.22 To the west of the level crossings, the existing public rights of way are long distance routes running mainly in an east/west direction. For example, it is possible to reach the village of Thorley Houses, approximately 3000m away and to reach the village of Bury Green approximately 4600m from the level crossings. The public rights of way are approximately 3700m in length when heading towards Tye Green via the village of Thorley.
- 2.47.23 To the east of the level crossings the long distance public rights of way run both north/south and east/west. To the north, for example, it is possible to reach Bishops Stortford via the public rights of way 3600m in length. To the south, for example, it is possible to reach Parndon Mill via the public rights of way, along the River Storr, over 11km in length.
- 2.47.24 To the east, for example, it is possible to reach Woodside Green village via the public rights of way 3700m in length.
- 2.47.25 The alternative diversion route maintains the connectivity of the long distances routes, via the use of the underpass, which results in an additional length of walking. The authorised user of H09 Fowlers level crossing would also divert to the underpass.
- 2.47.26 There have been several options which have been considered during the development of the alternative route submitted with the TWAO application.
- 2.47.27 The initial pre-feasibility options submitted with the Route Requirement Document, considered prior to public consultations, proposed closing the H05 and H06 level crossings without the provision of any new footpaths to compensate for the extinguishments of footpaths Thorley 22 (at H05) and Thorley 07 (at H06). Users would have been diverted south to Spellbrook road level crossing on Spellbrook Lane East and north to an existing footbridge on footpath Thorley 05. This was presented at round 1 consultation as shown in **NR32/2 at Tab 2, pages 195, 197 and 201** as the red and green routes respectively. However, an additional route akin to the final alternative proposal on the east side of the railway was incorporated to reduce the diversion lengths and to provide greater amenity value to the users. This is shown as the blue route in

**NR32/2 at Tab 2, pages 195, 197 and 201.** This route made use of road walking on the A1184 and B1383 to the west of the H05 Pattens Level crossing. The red and green routes were discounted following round 1 consultations.

- 2.47.28 An additional option was presented at round 2 consultation which did not include the use of the underpass. This is shown as Option A in **NR32/2 at Tab 3, pages 315, 319 and 325.**
- 2.47.29 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The RSA concluded that there were no issues associated with the proposals.
- 2.47.30 A Further Road Safety Audit will be undertaken on the route using Thorley Street and any issues will be addressed during detailed design.
- 2.47.31 Automatic Traffic Count data shown in Document **NR32/2 at Tab 1** located North of B1383/A1184 roundabout on Thorley Street showed an average 2 way daily traffic flow of 11536 vehicles and 85th percentile speed of vehicles of 38.1 mph.
- 2.47.32 Automatic Traffic Count data shown in Document **NR32/2 at Tab 1** located south of B1383/A1184 roundabout on A1184 showed an average 2 way daily traffic flow of 18079 vehicles and 85th percentile speed of vehicles of 39.0 mph.
- 2.47.33 The proposals at H05, H06 and H09 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposal, following the amendment described below.
- 2.47.34 To address issues raised by the local authority the design plans were amended following round 2 consultation to remove some road walking on the B1383 and to incorporate a field walking route which utilised an existing track parallel to the road, north from footpath Thorley 22.
- 2.47.35 The use of the underpass was discussed with the local authority and to address concerns on the open steel beam construction of the underpass, and public concerns about the susceptibility of the underpass to occasional flooding, feasibility proposals were developed to clad the beams and to provide a crossfall on the footway beneath the underpass to ensure that any water will drain off the path as quickly as possible. These proposals can be found in the Essex and Others Design Guide in core document **NR12.**
- 2.47.36 The Herts and Middlesex Wildlife Trust (HMWT) have objected to the proposals principally due to concerns about future access to the east side of Fowlers crossing to manage Thorley Wash Nature Reserve and the SSSI area that is not in their ownership, and also due to concerns about the introduction of a footpath within the site. There are ongoing discussions with HMWT to agree a suitable way forward in respect of both of those concerns..
- 2.47.37 Following consideration of use of the existing routes across the level crossings and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.48 H08 Johnsons**

- 2.48.1 At H08, public footpath Bishop's Stortford 060 runs north, parallel with the railway on its west side before crossing the railway at Johnsons level crossing and heading east towards a residential area and joining Cannons Close, a residential street approximately 170m north east of the crossing. The land immediately surrounding the crossing is largely undeveloped, with undisturbed fields and sports ground around the crossing. Adjacent to the crossing to the west

is a conservation area. The River Stort is located approximately 200m west of the crossing. Residential housing however dominates the wider area, the nearest of which are approximately 100m south east of the crossing.

- 2.48.2 The accessibility of the former level crossing was limited by the gates and fences that were narrow in places and potentially difficult for some wheelchair users to navigate.
- 2.48.3 It was identified that at this location a footbridge had been introduced around three years ago and that the level crossing was effectively closed as a result. For this reason, no new usage data was collected from Johnsons level crossing.
- 2.48.4 1 person that provided feedback on H08 during the first round of public consultation indicated that they used the crossing monthly for leisure use.
- 2.48.5 The proposed alternative route can be seen on drawing number MMD-367516-H08-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.48.6 Existing public rights of way over the level crossing will be extinguished. Users of the public footpath Bishops Stortford 060 to the west of the railway will make use of an existing accessible footbridge adjacent to the Johnsons level crossing. The diversion route formalises the public right of way that makes use of an existing track to the east of the level crossing, and extinguishes the public right of way shown on the definitive map. There is no significant change in the length of the existing route.
- 2.48.7 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.48.8 The level crossing lies between two centres of population in the Bishops Stortford conurbation. It is considered that there is not a linkage between the public right of way which uses the level crossing and the wider public right of way network which generally lie outside of the built up areas.
- 2.48.9 The use of the footbridge maintains the desire line and purpose of the original route.
- 2.48.10 The proposals at H08 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposal.
- 2.48.11 As a result of consultation comments, the alternative route was amended on the east side of the crossing to lie along an existing track.
- 2.48.12 Following consideration of use of the existing routes across the level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## **2.49 HA01 Butts Lane**

- 2.49.1 The crossing is located in a densely populated residential area of Emerson Park within east Romford. The footpath on which the crossing is located connects Burnway to Maybush Road.
- 2.49.2 The approach to the level crossing is via narrow tracks and there are crossing stiles on either side of the crossing. The crossing itself is fully paved and marked.
- 2.49.3 An existing count undertaken in 2015 for a nine-day period between 27th June and 5th July 2015 was assessed to provide good quality data, and as a result no new census surveys were commissioned. During the nine-day survey period, which included two weekends, a total of 247

pedestrians and 1 cyclist were recorded using the level crossing with the busiest day being Saturday 4th July 2015 when 37 pedestrians and 1 cyclist were recorded.

- 2.49.4 Of the 5 people that provided feedback on HA01 during the first round of public consultation, 1 indicated that they used it weekly, 1 used it monthly and 3 people rarely used the crossing. Of the 5 people that provided feedback, 1 indicated that the crossing was used to access local amenities, 2 for leisure use, 1 to access their own property, 1 stated 'other' use.
- 2.49.5 Based on location of the crossing point and feedback from public consultation and usage data it is considered that the crossing is used on regularly by a relatively high number of people to access the local amenities.
- 2.49.6 The proposed alternative route can be seen on drawing number MMD-367516-HA01-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.49.7 Existing public rights of way over the level crossing will be extinguished. Footpath 170 will be diverted onto the existing footway on Burnway, heading east to connect to an existing footbridge. Public right of way FP 170 would be extinguished on the south side of the crossing and up to Maybush Road on the north side to prevent the creation of a dead end whilst maintaining access to private properties. Boundary fencing will be installed at the railway boundary where the footpath is to be extinguished and gates will be installed at the boundary of the adopted highway to allow private access. Users will then use existing footpath, heading north to cross the railway via the existing footbridge before continuing west along Woodhall Crescent. Users will then be diverted via existing FP170 footpath to Maybush Road north of the level crossing.
- 2.49.8 The additional length of the diversion route is approximately 730m although this figure will depend on user origins and destinations.
- 2.49.9 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA ACTION	Designers Response
<p>Stakeholders raised concerns about the poor maintenance of the footbridge between Woodhall Crescent and Burnway.</p> <p>Network Rail should ensure that the footbridge meets guidelines outlined in the Equality Act 2010, such as consideration of handrails of an appropriate height and colour are implemented, along with a non-slip surface and lighting to a satisfactory level. This will help address stakeholder concerns and ensure that equality of access is maintained for all users.</p> <p>The footbridge also has a minimum width of 4m, which adequately</p>	<p>The footbridge is an existing footbridge maintained to the appropriate standards for use by the London Borough of Havering (LBH). NR to undertake review of footbridge with LBH at detailed design / implementation stage to understand LBH maintenance programme and any forthcoming improvements works.</p>



DIA ACTION	Designers Response
complies with the DfT's suggested 4.8m.	
Develop a route improvement strategy along the diversion route to help mitigate any negative impacts of increased walking distances, including the incorporation of benches. This will enhance the user experience for all groups and increase a sense of safety.	The provision of these facilities within the adopted highway should be discussed further with the Highway Authority at the detailed design stage.
Develop a communication strategy to ensure that local residents are kept abreast of developments, including scheduling of works, details of enhancements and improvements, and other benefits of the scheme, including user safety.	Network Rail to undertake at detailed design / implementation stage.

- 2.49.10 The alternative route retains the connectivity to both sides of the railway via the surfaced footways in an urban environment to access the route across the railway
- 2.49.11 The proposals at HA01 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposal.
- 2.49.12 Following consideration of use of the existing routes across the level crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.50 HA02 Woodhall Crescent

- 2.50.1 The crossing is located in a densely populated residential area of Hornchurch, east Romford. The footpath on which the crossing is located connects Maywin Drive to Woodhall Crescent. The surrounding area is residential with the exception of St Andrews Park, a small park located west of the crossing.
- 2.50.2 The approach to the crossing is via narrow and uneven paths, that would restrict accessibility for some people from protected characteristic groups.
- 2.50.3 During a nine-day census survey, which included two weekends, a total of 56 pedestrians and 9 cyclists were recorded using the level crossing with the busiest day being Friday 15th July 2016 when 15 pedestrians were recorded.
- 2.50.4 Of the 4 people that provided feedback on HA02 during the first round of public consultation, 1 stated that they used it weekly and 3 users rarely used the crossing. Of the 4 people that provided feedback, 2 indicated that the crossing was used to access local amenities and 2 for leisure use.
- 2.50.5 Based on location of the crossing point and feedback from public consultation it is considered that the crossing is used on regularly by a moderate number of people to access the wider footpath network.



- 2.50.6 The proposed alternative route can be seen on drawing number MMD-367516-HA02-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.50.7 Existing public rights of way over the level crossing will be extinguished. Footpath 172 will be diverted onto the existing footway on Maywin Drive, heading southeast to connect to an existing footbridge. Public right for FP 172 would be extinguished on the both side of the crossing to prevent the creation of a dead end whilst maintaining access to private properties. Boundary fencing will be installed at the railway boundary where the footpath is to be extinguished and gates will be installed at the boundary of the adopted highway to allow private access. Users will then use existing footway, heading north to cross the railway via the existing footbridge on Wingletye Lane before continuing northwest along the existing footway on Woodhall Crescent.
- 2.50.8 The additional length of the diversion route is approximately 460m although this figure will depend on user origins and destinations.
- 2.50.9 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA ACTION	Designers Response
<p>The existing gradient on the approaches to the footbridge as part of the diversion route is consistent with the DfTs preferred gradient of 5%. The footpath also has a minimum width of 1.9m, which meets guidelines that suggest a minimum width of at least 1.5m.</p> <p>Consideration should be given to ensuring that the footpath also has tactile paving, a non-slip surface material, adequate lighting, and signage.</p>	<p>The footbridge is an existing bridge maintained to the appropriate standards for use by the London Borough of Havering (LBH). NR to undertake review of footbridge with LBH at detailed design / implementation stage to understand LBH maintenance programme and any forthcoming improvements works.</p>
<p>Develop a communication strategy to ensure that local residents are kept abreast of developments, including scheduling of works, details of enhancements and improvements, and other benefits of the scheme, including user safety.</p>	<p>Network Rail to undertake at detailed design / implementation stage.</p>

- 2.50.10 The alternative route retains the connectivity to both sides of the railway via the surfaced footways in an urban environment to access the route across the railway
- 2.50.11 The proposals at HA02 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposal.
- 2.50.12 Following consideration of use of the existing routes across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.51 HA03 Manor Farm and HA04 Eves

- 2.51.1 HA03 crossing has been out of use since the construction of the M25 which severs the route to the east. There is no obvious footpath route to the crossing on the ground, although a footpath does exist on the definitive map. The crossing would be closed legally to reflect the current situation on the ground.
- 2.51.2 HA04 is traversed by public footpath 252 is an unsurfaced footpath that runs in a north easterly directly, parallel to the M25 to its east, before turning east after crossing the railway and running between agricultural fields. The M25 is approximately 30m west of the crossing. The surrounding area is predominantly agricultural, with a small number of residential properties and farms in the area, the nearest of which is an agricultural business approximately 250m to the north east of the crossing.
- 2.51.3 The crossing is not accessible for people with mobility difficulties, or those with wheelchairs / pushchairs, as it requires the use of stiles. The approach to the crossing is also uneven with overgrown vegetation.
- 2.51.4 During a nine-day census survey, which included two weekends , no users were recorded on the level crossing.
- 2.51.5 Of the 3 people that provided feedback on HA04 during the first round of public consultation, 1 indicated that they used the crossing fortnightly, 1 person rarely used the crossing and 1 person never used the crossing. 1 response indicated leisure issue of the level crossing and 2 responses did not provide a use. There is, however, no crossing on the ground, as stated above.
- 2.51.6 Whilst there is no census data for HA03 and no users recorded for HA04 to assist with assessment of the likely level of usage of the crossing, based on the feedback from consultation and the location of the crossings, it is considered that HA03 is not used and HA04 would be mainly be used for leisure purposes by a relatively small number of users.
- 2.51.7 The proposed alternative route can be seen on drawing number MMD-367516-HA03-GEN-005 and MMD-367516-HA04-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.51.8 The residual public rights of way over the HA03 Manor Farm level crossing will be legally extinguished and the public rights of way over footpath 251 will be legally extinguished from Pea Lane on the west to the M25 on the east, approximately 330m.
- 2.51.9 Footpath 252 will be diverted west onto the existing footway and verge on Dennis Road. FP 252 would be extinguished on the west side of the crossing and on the east side of the level to prevent the creation of a dead end. Boundary fencing will be installed at the railway boundary where the footpath is to be extinguished. Users will be diverted from Dennis Road onto a new 2m wide unsurfaced footpath outside of Network Rail land. This new footpath will be within a field margin to the west of the woodland and then heading west and north before crossing over the existing highway, Pea Lane. Users will make use of the existing track over which a 2m wide unsurfaced footpath will be created, heading north to FP251 which will then be used to reach Pea Lane by heading east. Users will continue over Pea Lane onto a new 2m wide unsurfaced footpath. This new footpath will be within a field margin, outside of Network Rail land to the east of Pea Lane and then heading north and east before crossing the railway at the existing road bridge on Ockendon Lane. To the east of the railway, users will be diverted east onto a new 2m wide unsurfaced footpath outside of Network Rail land before using the existing footway on Ockendon Lane to re-join FP231 heading south to connect to existing footpath FP253.

- 2.51.10 The additional length of the diversion route is approximately 2400m although this figure will depend on user origins and destinations.
- 2.51.11 Following a scoping study, a DIA was not considered necessary at this crossing as the route at HA03 is closed and due to the current restricted accessibility of the existing crossing route at HA04.
- 2.51.12 The public rights of way in the vicinity of HA04 are generally considered to be of east / west orientation. The public rights of way are short to medium in length and require road walking to continue onwards.
- 2.51.13 The alternative diversion maintains the east / west connectivity via a longer length of new public right of way and the bridge on Ockendon Road.
- 2.51.14 An option was shown at round 1 consultation that proposed a diversion route for HA04 to the south which can be seen in **NR32/2 at Tab 2, page 209** as the red route. This was discounted following public and local authority concerns about the length of the diversion.
- 2.51.15 The design of the north diversion route for HA04 at this juncture made use of road walking on Pea Lane and Ockendon Road and can be seen as the blue route in **NR32/2 at Tab 2, page 209**. The northern route was developed further as the preferred option.
- 2.51.16 The blue route as shown in **NR32/2 at Tab 2, page 209** was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team and the following issues were identified:
- Pedestrians will walk along a section of Ockendon Road where no footway or notable verge is present; this will result in pedestrians walking in the carriageway. A high volume of traffic was observed on Ockendon Road travelling at high speeds despite the 40mph speed limit and visibility is restricted by the highway geometry and the railway road bridge. These factors may result in collisions between pedestrians and vehicles.*
- Pedestrians will walk along the length of Pea Lane where no footway or notable verge is present; a high volume of traffic was observed travelling at high speeds and visibility is restricted by the highway geometry and vegetation. These factors may result in collisions between pedestrians and vehicles.*
- 2.51.17 The use of road walking has been mitigated as much as reasonably feasible by the introduction of field edge footpaths along Pea Lane and Ockendon Road. The final design proposal submitted with the TWAO provides new footpaths on both sides of the railway up to the Ockendon Road railway bridge structure to eliminate road walking as far as practicable. Users would have a length of approximately 30m over the bridge using the carriageway and narrow verge areas (these areas would be cleared of vegetation).
- 2.51.18 While the approaches to the Ockendon Road railway bridge are straight and offer good visibility towards the bridge for several hundred metres, the hump back nature of the bridge does create a zone of reduced visibility for vehicles to pedestrians and vice versa. A length of approximately 15m carriageway walking is within the zone of limited visibility.
- 2.51.19 As part of the detailed design process further discussions with the Highway Authority would take place to discuss this issue which could include additional measures to help enforce the speed limit and warn motorists of pedestrians in road through the use of signage, lining and rumble strips.

- 2.51.20 The proposals at HA03 and HA04 have been discussed in two workshops with the local highway authority. Officers gave no objection for the closure of these level crossings, but expressed concern for the safety of pedestrians along Pea Lane and Ockendon Road.
- 2.51.21 To address the public concerns regarding the use of Pea Lane and Ockendon Road, and the issues raised by the Road Safety Audit, the design was amended after round 2 consultation to include field walking footpath routes adjacent to Pea Lane and Ockendon Road although the use of Ockendon Road bridge is still required.
- 2.51.22 Following consideration of use of the existing routes across the Level Crossings and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.52 T01 No 131

- 2.52.1 Footpath 145 runs from Tank Hill Road in an easterly and north easterly direction to the A1306, Arterial Road, crossing the railway at No 131 level crossing. Mar Dyke is located south of the level crossing and High Speed 1 runs north of the level crossing.
- 2.52.2 The accessibility of this crossing is poor as it includes several stiles to access the line with muddy and uneven pathways that are likely to have the effect of excluding wheelchair users, those with pushchairs and users with limited mobility. There is a narrow and uneven, wooden footbridge over a ditch across which certain users would be expected to access the crossing. As well as reducing the ability of those with limited mobility from accessing the crossing, it may also pose a risk to young children. The use of whistle boards at this crossing make it more accessible to those with visual impairments, however such users would also be limited by the
- 2.52.3 During a nine-day census survey, which included two weekends, a total of 8 pedestrians were recorded using the level crossing with the busiest days being Saturday 9th, Monday 11th and Friday 15th July when 2 pedestrians were recorded each day.
- 2.52.4 No public responses on frequency of use or purpose of use were received for T01.
- 2.52.5 It is considered that the crossing is used infrequently by a small number of people to access the wider footpath network and potentially for access between conurbations to the north and south.
- 2.52.6 The proposed alternative route can be seen on drawing number MMD-367516-T01-GEN-005, which can be found in Appendix F of core document **NR26**.
- 2.52.7 Existing public rights of way over the level crossing and west of the A1306 will be extinguished. Users would use the existing footway on Tank Hill Road and be diverted to the bridge over the railway to the north of the level crossing. Users would then cross over the A1306 at the pedestrian crossing point and use the footway along eastern side of the A1306 to join the existing Footpath 145. Users would then be diverted onto a proposed footpath, on the west side of the railway. The diversion heads south parallel to the A1306 to an existing bund, travels eastbound and then northbound along the bund to re-join the existing Footpath 145. This new footpath will be a 2m wide and unsurfaced.
- 2.52.8 The additional length of the diversion route is approximately 700m although this figure will depend on user origins and destinations. For those walking west along footpath 145 to reach A1306, the new footpath would be approximately 130m longer than the existing route. For those who wish to travel from the junction between footpath 145 and the A1306, to the junction between footpath 145 and Tank Hill Road on the western side of the railway, the route would be approximately 600m longer than at present.

- 2.52.9 The westerly section of the footpath diversion runs parallel to the A1306, from the end of the track to the point where Footpath 145 crosses a field edge ditch via an existing footbridge, before meeting the eastern footway on the A1306. This diverted section of Footpath 145 has been retained within the field edge to maximise the amenity value given by off road walking.
- 2.52.10 Following a scoping study, a DIA was not considered necessary at this crossing due to the current restricted accessibility of the existing crossing route.
- 2.52.11 The length of the affected footpath over the level crossing is approximately 1200m and the route does not connect to the wider public right of way network on the west side of the crossing. The alternative diversion maintains the east / west connectivity via a longer length of new public right of way and the bridge on New Tank Hill Road. The diversion of footpath 145 onto the flood bund improves the PROW network in times of wet weather.
- 2.52.12 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The RSA concluded that there were no issues associated with the proposals.
- 2.52.13 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on A1306 Arterial Road south of junction with Tank Hill Road, which showed an average 2 way daily traffic flow of 22257 vehicles and 85th percentile speed of vehicles of 42.4mph where the posted is 60mph.
- 2.52.14 The A1306 has an existing footway which is considered safe for use. The proposals were considered appropriate when the traffic data was considered on this section of the route
- 2.52.15 The proposals at T01 have been discussed in two workshops with the local highway authority. Officers have not objected to the proposal.
- 2.52.16 Following feedback from the local authority it was acknowledged further investigation could be considered to mitigate flooding issues along the existing footpath 145. A proposal from the local authority suggested an alternative route which would make use of an existing track to mitigate the footpath flooding issue. The proposed route increased the diversion length but would offer a route which could be used throughout the year. This suggestion was incorporated into the design submitted with the TWAO.
- 2.52.17 In response to the TWAO submission a different alternative route or concept was suggested by an Objector as part of the TWAO process. This has been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (pages 3 and 7)**.
- 2.52.18 Following consideration of use of the existing routes across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.53 T04 Jefferies

- 2.53.1 Footpath 145 runs from the A13 in a south easterly direction to the housing estate to the east of the railway, crossing the railway at Jefferies level crossing. Agricultural land occupies the land to the north and west and residential dwelling to the east. The A13 Stanford-le-Hope Bypass is to the southwest of the railway.
- 2.53.2 The accessibility of Jeffries level crossing is somewhat limited by the uneven pathways that lead to the crossing on each side. Moreover all users will have to walk through the adjacent field to access the level crossing from the north. Access to the crossing on both sides is via uneven

- 2.53.3 During a nine-day census survey, which included two weekends, a total of 144 pedestrians and 17 cyclists were recorded using the level crossing with the busiest day being Sunday 10th July when 20 pedestrians and 6 cyclists were recorded.
- 2.53.4 1 person provided feedback on T04 during the first round of public consultation which stated that they rarely used the crossing and no purpose of use was given.
- 2.53.5 It is considered that the crossing is used regularly by a moderate number of people to access the wider footpath network.
- 2.53.6 The proposed alternative route can be seen on drawing number MMD-367516-T04-GEN-005, which can be found in Appendix F of core document reference **NR26**.
- 2.53.7 Existing Public Rights of Way over the level crossing and between the east side of the A13 and the level crossing will be extinguished. Footpath 32 will be diverted onto a proposed 2m wide, unsurfaced footpath on the east side of the A13 heading southwest along the field boundary. Users would then be diverted onto new stepped access west of the railway and cross over the railway bridge on The A1014 Manorway Way along the existing footway. To return to the west side of Footpath 32 users would be diverted onto new stepped access east of the railway. The stepped access would be to the east of the existing bridge parapet and would require removal of the end panel of existing noise barrier. Users would then be diverted along a proposed 2m wide footpath within Network Rail land and then use the existing path to link into Footpath 32 east of the railway.
- 2.53.8 It is also proposed to provide a new continuous footpath link between the stepped access on the west side of the railway by connecting to Footpath 36 which extends beneath the railway via an existing underpass to the south of the A1014 Manorway. The new footpath will be 2m wide and unsurfaced and would make use of the existing open span underneath the bridge supporting A1014 The Manorway. The surfacing beneath the bridge within the open span would have a gravel or stone finish.
- 2.53.9 To the west of the railway a 3m wide steel footbridge (>8m in length) is required along the new footpath to the west of the railway near Footpath 36 to allow users to cross a drainage ditch.
- 2.53.10 The additional length of the diversion route is approximately 1150m although this figure will depend on user origins and destinations.
- 2.53.11 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA Action	Project Team Response
Develop a communication strategy to ensure that local residents and walking/leisure groups are kept abreast of developments, including the scheduling of works, and any details of potential benefits of the scheme, particularly focussing on user safety.	NR to undertake this at detailed design and/or implementation stage.
At detailed design, measures should be considered to improve pedestrian safety in the underpass, so that standards and DfT guidelines can be met wherever possible and practicable.	NR to undertake this at detailed design and/or implementation stage.
Assessment of LIDAR data has shown that the existing gradient and width of the underpass are generally acceptable to support accessibility and adequately comply with suggested guidelines - these should be confirmed at the detailed design stage.	NR to undertake this at detailed design and/or implementation stage.
Within the underpass, consideration should be given for the provision of handrails set at 1000mm above the walking surface on both sides. There should be a clear view from one end to the other and a good level of lighting. CCTV cameras should also be considered in underpasses to enhance security. Notices to the effect that CCTV is in operation should deter vandals and provide a measure of comfort to pedestrians.	The provision of CCTV and lighting is not considered appropriate on what is a leisure route. The rest of the new footpath length would not be lit. Lighting in this situation is likely to encourage anti-social behaviour.
Ensure that the new footpaths that are created meet guidelines outlined in the Equalities Act 2010. Where appropriate, the new paths should have an even surface, tactile paving, dropped kerbs and wayfinding signs. The proposals states that the new paths will be 2m wide. This would help ensure equality of access is maintained for all users.	The provision of these facilities within the adopted highway or on the footpath route should be discussed further with the Highway Authority at the detailed design stage.
As the proposed diversions are long, rest points should be included as part of the diversion route.	The provision of these facilities within the adopted highway or on the footpath route should be discussed further with the Highway Authority at the detailed design stage.

DIA Action	Project Team Response
Review the DIA at every GRIP stage to ensure equality of access is maintained for all.	NR to undertake this at detailed design and/or implementation stage.

- 2.53.12 Jefferies level crossing provides access to the long distance public rights of way to the north and west of the conurbation of Stanford-Le-Hope. A footpath link to Horndon on the Hill approximately 1600m in length uses the level crossing and a northern public right of way runs approximately 7000m to the village of Dunton. There is a link to the village of Dry Street to the east over 3700m in length. The alternative routes, stepped and level, improve links to the A13/Manorway junction where a number of footpaths within the PROW network meet.
- 2.53.13 Two options were presented at round 1 consultation and these are shown in red and blue in **NR32/2 at Tab 2, page 213**. The options were combined to provide the final proposals but the section of blue route on the east of the railway to the south of the Manorway was removed due to the potential impact on a development site in that location.
- 2.53.14 The proposal route was subject to a Stage 1 Road Safety Audit carried out in line with HD19/15 and by an independent team remote from the option development design team. The audit team identified that there is a risk of vehicle to pedestrian collisions along the diversion route.
- The proposed diversion would run alongside the eastbound carriageway of the A1014 Manorway. The location of the proposed footpath was inaccessible at the time of the site visit and it was therefore difficult to determine the existing width. If there is insufficient width, there is a risk that pedestrians will be forced to travel within the carriageway for a short length at risk of collisions with vehicles, which were observed to travel at high speed.*
- 2.53.15 The Audit Team recommended that a suitable footway width should be provided behind the barrier and be clear of any obstructions, which was assessed and a site visit confirmed that a footway could be provided between the barrier and bridge parapet. This was incorporated into the final diversionary proposals.
- 2.53.16 The proposals at T04 have been discussed in two workshops with the local highway authority. Officers have objected to the proposal. Following consultations it was noted that the use of the use of the steps to the A1014 would assist in reducing the length of the diversion route and they were included in the scheme proposals.
- 2.53.17 In response to the TWAO submission a different alternative route or concept was suggested by an Objector as part of the TWAO process. This has been assessed further and the considerations are presented in Document **NR32/2 at Tab 7 (page 5)**.
- 2.53.18 Following consideration of use of the existing routes across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

## 2.54 T05 Howells Farm

- 2.54.1 Footpath 23 runs from the B1420 in a south easterly direction to Inglefield Road crossing the railway at Howells level crossing. The crossing is surrounded by agricultural fields to the north, south and west and by woodland to the east. An industrial area is located east of the level crossing.



- 2.54.2 The northern approach to the level crossing is via a densely vegetated, narrow dirt track. This will limit accessibility for people with disabilities and parents with pushchairs. The southern approach is via a partially tarred road, off Inglefield Road, which poses little restriction for any users.
- 2.54.3 During a nine-day census survey, which included two weekends, a total of 17 pedestrians and 3 cyclists were recorded using the level crossing with the busiest day being Sunday 17th July when 6 pedestrians and 1 cyclist were recorded.
- 2.54.4 Of the 4 people that provided feedback on H06 during the first round of public consultation, 2 indicated that they used the crossing weekly, 1 used it monthly and 1 user rarely used the crossing. Of the 4 people that provided feedback, 3 of the responses indicated leisure use of the level crossing and 1 response did not state use.
- 2.54.5 It is considered that the crossing is used regularly by a relatively small number of people to access the wider footpath network.
- 2.54.6 The proposed alternative route can be seen on drawing number MMD-367516-T05-GEN-005, which can be found in Appendix F of core document reference **NR26**.
- 2.54.7 Existing Public Rights of Way over and north of the level crossing will be extinguished. There are two diversion routes proposed. Footpath 23 will be extended onto a proposed 2m wide, unsurfaced footpath, on the south side of the railway heading in a south west direction along the edge of field boundary outside Network Rail land. To cross the railway users would use proposed stepped access on to Southend Road and bridge over the railway using the existing footway to connect into the existing Public Right of Way network north of the A13.
- 2.54.8 Alternatively, users would be diverted from Footpath 23 east along Inglefield Road and then north along High Road. To cross the railway users would use Fobbing (Automatic Half Barrier) level crossing.
- 2.54.9 For those who are travelling along footpath 23 and wish to access the PROW network to the west and (Bridleway 225) Langdon Hill County Park, the diversion route is of comparable length, and with the new 840m long footpath which would be created, offers an off-road route which was not previously available.
- 2.54.10 This new footpath almost completely replaces the need for pedestrians to use the B1420. It is considered that the amenity value would increase by removing road walking to reach bridleway 225.
- 2.54.11 A DIA scoping exercise recommended that full Diversity Impact Assessment was undertaken. The DIA concluded that due to the availability of the alternative route in the local area to cross the railway, closure and redirection along the proposed diversion route is considered an appropriate solution. However, there were further points raised as potential actions for which consideration should be given. These are recorded in the table below:

DIA Action	Project Team Response
Develop a communication strategy to ensure that local residents and walking/leisure groups are kept abreast of developments, including the scheduling of works, and any details of potential benefits of the scheme, particularly focussing on user safety.	NR to undertake this at detailed design and/or implementation stage.
Network Rail should consider route improvement measures along the proposed diversion, including consideration of extending the footpath on Southend Road. Assurance should be given that all other footpaths meet guidelines, such as having dropped kerbs, tactile paving and a width of at least 1.5m. Rest points could be considered as part of the diversion route.	The proposed diversion route does include a section of verge walking on Southend Road, however the inclusion of a new length of footpath to the southwest of the level crossing means that the proposals will result in significantly less use of Southend Road than is currently the case. The provision of an extended footway is therefore not considered to be appropriate.
Review the DIA at every GRIP stage to ensure that any changes to the design do not worsen the access and they improve where appropriate.	NR to undertake this at detailed design and/or implementation stage.

- 2.54.12 There is no direct connectivity from the level crossing to the wider public rights of way to the north of the railway. Ongoing public rights of way lie to the southwest and northeast of the level crossing and require the use of road walking to reach these public rights of way.
- 2.54.13 The proposed diversions to the southwest and northeast will maintain and improve the desire lines provided by the existing public right of way in terms of connectivity to the wider network and services.
- 2.54.14 Two additional options were presented at round 1 consultation and these are shown in red and blue in **NR32/2 at Tab 2, page 215**. The green option forms part of the final proposals. The blue and red options were discounted due to the potential impact on the development site in the former water works.
- 2.54.15 A further option was presented at round 2 consultation and this is shown in **NR32/2 at Tab 3, page 339**. The route through the development site was amended to produce the final proposals.
- 2.54.16 A Road Safety Audit will be undertaken on the route and any issues will be addressed during detailed design.
- 2.54.17 Automatic Traffic Count data (see Document **NR32/2 at Tab 1**) was collected on High Road, north of Moores Avenue and south of A176, which showed an average 2 way daily traffic flow of 2966 vehicles and 85th percentile speed of vehicles of 40.6mph where the posted is 60mph.
- 2.54.18 The proposals were considered appropriate when the traffic data was considered on this section of the route

- 2.54.19 The proposals at T05 have been discussed in two workshops with the local highway authority. Officers have objected to the proposal.
- 2.54.20 As a result of consultation, the proposed footpath to the southeast of the level crossing was introduced to assist with access to the public rights of way to the west of the level crossing.
- 2.54.21 Following consideration of use of the existing routes across the Level Crossing and the assessment of the proposed alternative in terms of impacts on the environment, users and other impacted parties, I am satisfied that the proposed route is suitable and convenient when considered in the context of the purpose and characteristics of the existing route.

### 3      **Witness declaration**

I hereby declare as follows:

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

**Susan Tilbrook**  
September 2017