A12 Chelmsford to A120 widening scheme

TR010060

9.31 Applicant's Comments on Information received at Deadline 2

Rule 8(1)(c)(i)

Planning Act 2008

Infrastructure Planning (Examination Procedure) Regulations 2010

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The Infrastructure Planning
(Examination Procedure) Rules 2010

A12 Chelmsford to A120 widening scheme

Development Consent Order 202[ ]

Applicant's Comments on Information received at Deadline 2

Regulation Number	Rule 8(1)(c)(i)
Planning Inspectorate Scheme Reference	TR010060
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Author	A12 Project Team and National Highways

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CONTENTS

1 Introduction

1.1.1 The Development Consent Order (DCO) application for the A12 Chelmsford to A120 widening scheme (the proposed scheme) was submitted by National Highways to the Secretary of State for Transport via the Planning Inspectorate on 15 August 2022 and accepted for Examination on 12 September 2022.

1.1.2 The purpose of this document is to set out the Applicant's comments on submissions made by Interested Parties (not classed as Written Representations) at Deadline 2 of the Examination.

2 Applicant's Comments on Information received at Deadline 2

Andrew Harding	**REP2-035-001**
Sub-Question	
Submission ID: 13721 I wish to make relevant representations about Junction 24 and National Highways SOCG	
Applicant's Response	
The Applicant notes the Interested Party's request.	
Charles Henry Martin	**REP2-043-001**
Sub-Question	
Comments on "Applicant's Responses to Open Floor Hearing 2, Appendix OFH2A- Junction 20A Southbound Merge Alternative Roundabout Proposal Analysis" Document Ref TR010060/EXAM/9.13. 1. My name is Charles Martin and I have previously made 2 submissions (refs 13557 and 13728) proposing a roundabout solution for the retention of Junction 20A Southbound. I am assuming I can respond, by Deadline 2, to the Applicant's response to my submissions after the Open Floor Hearing. 2. I would make the following corrections to the text in the main body of the above document: Page 5, ref 6 - I have been a chartered civil engineer 35 years not 30 years and Page 7, ref 8 - The roundabout I propose is 28 metres ICD not 20 metres.	
Applicant's Response	

The Applicant acknowledges the Interested Party's corrections to the referenced document; TR010060/EXAM/9.13.
REP2-043-002
Sub-Question
3. I make the following comments on the Applicant's document referenced in the title above. Applicant's Paragraph Charles Martin's Comment 1.1.4 My design cannot be considered "similar" to the Applicant's previous roundabout design outlined in their document "Applicant's Responses to Relevant Representations" Jan 2023 Document ref. TR010060/EXAM/9.3 2.1.1 The Applicant still appears not to have carried out their own detailed technical design. They have simply modelled my design in AutoCAD. As previously stated, my design Options 1-3 are still to be considered sketches. Hence the Applicant's comments can only be considered as subjective without technical back up. 2.1.4 The Applicant's comments are noted. 10 mph is an acceptable speed for HGVs to negotiate a compact roundabout. 2.1.5 The Applicant feels that the southbound exit and northbound approach to the roundabout, as proposed in my earlier submissions, appear to cause HGVs some difficulties remaining in the correct lane. I would say large scale design will resolve this, as the overlap is very small. I am surprised that the Applicant has not carried out such a detailed design as I requested at the OFH 2, before dismissing my ideas. Continued below 2

Applicant's Paragraph Charles Martin's Comment 2.2.2 and 2.2.3

My design could have some effect on the last section of Crix House curtilage wall. I previously stated in earlier submissions that the wall could avoided by careful detailed design, if not completely avoided then any effect could be minimised. This design work has not been carried out by the Applicant such that I can be convinced that the wall is a critical restraint on any alignment. The roundabout approach/exit alignments appear to be critical in resolving any HGV conflict referred to above and in my view this conflict can be removed with detailed design.

2.2.4 The Applicant's design referred to assumes a design speed of 85kph (50mph). This does not need to be the case. Indeed the more logical design would be to continue the Hatfield Peverel village speed limit of 30 mph up to my proposed roundabout and further south by say 100 metres in both directions. There is a logic to this as drivers can understand a definite change in road layout and a lower design speed can minimise the B1137 curvature required. Local entry/exit curves can be accommodated more readily to resolve the HGV conflicts described by the Applicant.

2.2.5 and 2.2.6 My alternative scoring of the designs detailed in my second submission (ref 13728 dated 27th January 2023) after the OPH 2, gives a score of +8 and I disagree with the Applicant's assessment of the negative effects of the items listed in 2.2.5

2.3.2 The Applicant agrees that further detailed design of my proposal may mitigate the geometric issues identified by "the swept path analysis". I therefore respectfully insist that the Applicant does indeed carry out further design to prove to the ExA that a roundabout should be installed. Continued below 3

Applicant's Paragraph Charles Martin's Comment 2.3.3

The Applicant states that A12 main line drivers may conflict with merging drivers from Junction 20A due to the vicinity of the upstream merge from their proposed Junction 21. The ExA will require proof of this subjective statement. My view is that the two junctions are far enough apart for this not to be an issue. The various user issues with roundabouts in general are well known and apply to any roundabout nationally. My proposal is no different. The surplus land being acquired for the attenuation pond can be used to accommodate my design and any insignificant increase in size of the pond will accommodate any extra run off. The

Applicant's comment on carbon impact is very subjective and no proof to support this has been provided. I agree with the Applicant that minor mitigation works may be required to offset any minor loss to The River Ter flood plain. I do not see this as being a serious argument to ignore my proposal. 3.1.1 The HGV issues are discussed above. 3.1.2 The Applicant's position is basically flawed as discussed above. 3.1.3 As discussed above the Applicant agrees a roundabout solution meets the design standards but the Applicant's position on the link back to the B1137 can be resolved with detailed design 3.1.4 The Applicant's comment only applies with the higher design speed of 50 mph, reduce this to 30 mph and redesign the south entry/exit. 3.1.5 My alternative design scores +8 in direct comparison to the Applicant's poor assessment of their completely different design.
Applicant's Response
The Applicant notes the Interested Party's comments on the Applicant's Response to Open Floor Hearing 2, Appendix OFH2A – Junction 20A Southbound Merge Alternative Proposal Analysis [REP1-012]. Throughout the development of the DCO design, consultation phase and examination phase, the Applicant has undertaken extensive analysis of different options to reinstate the junction 20A on-slip. The Applicant acknowledges this is a contentious issue in the community and has made every effort to consider various junction options, including those presented by Mr Martin. The Interested Party notes that the Applicant has not undertaken detailed technical design of the junction 20A roundabout. As stated in the aforementioned report [REP1-012], detailed design of the roundabout in accordance with Design Manual for Roads and Bridges (DMRB) standards has been undertaken and is presented in the Applicant's Junction 20A Southbound Merge

Assessment of Alternatives Report in Appendix B of the Applicant's Response to Relevant Representations [REP1-002]. Whilst the Applicant explored options similar to that proposed by Mr Martin, to achieve compliant horizontal curve radii on the entry and exits to the roundabout, a larger footprint is required. The Applicant maintains that the minimum footprint required to reinstate junction 20A was designed in detail and was assessed within the Junction 20A Southbound Merge Assessment of Alternatives report [Appendix B, REP1-002].

Regarding reinstating junction 20A within close proximity to the proposed junction 21 on slip and junction 19 off slip, National Highways is committed to providing a safe road network for all road users. Introducing another merge between junction 21 and junction 19 introduces an additional conflict point on the A12 and increases the risk of collision between drivers weaving between lanes.

With regard to the safety risks identified at the roundabout in the Applicant's multi-disciplinary assessment [Appendix B, REP1-002], the Applicant maintains the position that despite the well-known nature of user issues at roundabouts, this still needs to be taken into consideration in the assessment.

Regarding the design speed adopted by the Applicant, it is more appropriate to design the roundabout for speeds of 50mph as the long straight nature of the B1137 between Hatfield Peverel and Boreham is likely to lead to approach speeds to the roundabout higher than 30mph. Reducing the speed to 30mph between Hatfield Peverel village and the roundabout could make this junction redundant as drivers opt to take the faster route to the A12 via junction 21.

The Applicant has taken a holistic approach to assessing the proposals for the roundabout design as there are many factors to consider other than highway geometry, such as the environmental impact, construction and operational safety, additional land take and carbon footprint. The Applicant maintains the position presented in the DCO design that junction 20A should not be

replaced, and traffic directed to junctions 19 and 21 to access the A12.
REP2-043-003
Sub-Question
4. Conclusion 4.1. The Applicant agrees that a roundabout proposal including associated slip-on and merge is a viable solution. 4.2. What needs to be done, is for the Applicant to submit a detailed design to the ExA that demonstrates this accurately. The Applicant thus far seems content to down-play a roundabout solution, relying on arguments without substantive proof to support their decisions. 4.3 The ExA, armed with a detailed roundabout solution can then make a reasoned decision on whether Junction 20A can remain open southbound.
Applicant's Response
Section 2 of the Applicant's Junction 20A Southbound Merge Alternative Roundabout Proposal Analysis report [REP1-012] states that the roundabout option and signalised junction presented in the Junction 20A Southbound Merge Assessment of Alternatives report [REP1-002] can be considered geometrically viable, however the multidisciplinary disbenefits outlined in the report outweigh the benefits of reinstating the junction 20A southbound on slip. As mentioned in response to REP-043-002, the Applicant has undertaken detailed design of a roundabout option, and this is included in the Junction 20A Southbound Merge Assessment of Alternatives report [REP1-002]. This design resulted in a larger footprint than that proposed by Mr Martin to accommodate conforming horizontal curve radii at the entry and exit to the

roundabout.

The Applicant appreciates the level of detail with which Mr Martin has reviewed the proposed scheme and is open to meeting with Mr Martin to discuss each party's positions in further detail.

Essex County Council

REP2-056-001

Sub-Question

Response to the Applicant's draft itinerary for the Accompanied Site Inspection (ASI) Essex County Council (ECC) has reviewed document reference REP1-004 Deadline 1 Submission – 9.5 Draft Accompanied Site Inspection – Rev 1 and would like to make the following comments:

1. We welcome the inclusion of Messing Village and B1023 Inworth Road within the Applicant's itinerary to inspect the construction, traffic, and environmental impacts.

2. We recommend an extended duration spent at Applicant's suggested Location C, Rivenhall End Service Station, to allow participants to view the de-trunked section at Rivenhall End and the Henry Dixon Road underpass, approximately 85m away from the Rivenhall End Service Station. The Henry Dixon Road underpass is a large structural asset proposed by the applicant to be handed over to ECC. Please note there is a flight of stairs from the A12 carriageway leading to Henry Dixon Road.

3. We recognise the ExA visited the Duke of Wellington roundabout during their unaccompanied site inspection on 11 January 2023 however we would recommend a re-visit around the Applicant's proposed timings of 15:55 to 16:30. This involves walking a further 100m from the Applicant's Location L, Duke of Wellington Bridge, to the Duke of Wellington roundabout to observe the

traffic flows.

4. We noted the Braxted Road and Braxted Park Road has been excluded from the draft ASI Itinerary. We believe this location, a drive by as a minimum, should be included because this is a key route between Tiptree and the A12 which is forecast to become significantly busier. Appleford bridge is a narrow bridge located on Braxted Road that will be adversely impacted by the A12 as highlighted in ECC's Local Impact Report.

5. We noted the 13 different locations within the draft ASI Itinerary however we would still like the Examining Authority to consider Rettendon Common and Copdock as we believe it will provide useful local context around de-trunking. ECC is happy to arrange minibus transport to these locations, perhaps as a separate visit, if this would be useful.

Applicant's Response

The final ASI locations are agreed and published by the ExA. The locations are chosen based on their accessibility, issues raised, time available on the day and how the route would work.

The locations requested to be visited by the Interested Party have been noted however the ExA has now published the final ASI [EV-010].

Essex Local Access Forum (ELAF)

REP2-057-001

Sub-Question

The proposed route from point B - point C is via Highfields Lane which is narrow with sharp bends and passing places - see the

uploaded Open Street map snip.

may be happy to give permission for the use of their farm track from the eastern end of Highfields Lane, just off Inworth Road, initially using the route of the old "Crab & Winkle" light railway line. This is also I believe the proposed route of the MIAG "community by-pass". The farm track also passes alongside the land proposed to be used as borrow pit J. From the submissions made, are unhappy with the land take proposals and so may well be amenable to granting permission to use their farm track. The farm track exits onto the wider and straighter north-west end of Highfields Lane.

An alternative end is to turn north using the farm track (and public footpath) over Ewell Hall bridge over the A12 - due to be moved slightly - continuing on Ewell Hall Chase to Maldon Road.

Applicant's Response

The applicant notes that the Interested Party has requested additional stops to the Accompanied Site Inspection (ASI). Highfields Farm, Kelvedon has been added to the draft ASI [OD-004].

The final ASI locations are agreed and published by the ExA. The locations are chosen based on their accessibility, issues raised, time available on the day and how the route would work.

L&Q, Cirrus Land and G120 Ltd

REP2-063-001

Sub-Question

Submission ID: 13955 We note that several representations have been received to deadline one, stating that the A12 realignment should be moved as the West Tey new settlement will no longer come forward. We would like to reiterate that the

promoters remain committed to the project, and with the Colchester Local Plan due to start it's review in July 2023 they will be putting forward an new, ambitious new settlement

Applicant's Response

The Applicant notes the aspirations of the promoters for the West Tey new settlement.

The proposed scheme for the A12 has taken account of committed development in the form of planning applications, planning permissions and local plan site allocations. This is in accordance with the Department for Transport, Transport Analysis Guidance (TAG M4) for developments that should be considered in the scheme traffic model, which serves as basis of the Environmental Assessment.

The Case for the Scheme [APP-249] provides a summary of the rationale for the proposed scheme, including presentation of the problems and challenges and how these would be addressed by the proposed scheme.

Chapter 3 of the Case for the Scheme [APP-249] and Chapter 3 of the Environmental Statement – Assessment of Alternatives [APP-070] provide an overview of how the proposed scheme has developed over time. Both documents detail the alternatives considered and explain how these were refined to arrive at the proposed scheme that is the subject of the Application.

Mr Mark David Cathcart

REP2-070-001

Sub-Question

Film Clip showing the height, girth and majesty of the large Poplar on Otter Island

Applicant's Response
The Applicant acknowledges the footage submitted to the examination.
Mr Mark David Cathcart **REP2-071-001**
Sub-Question
Nature cam footage of otter next to his holt
Applicant's Response
The Applicant acknowledges the footage submitted to the Examination. Matters relating to otter are addressed within the response to sub-question REP2-069-006 and the response to ExQ1 7.0.3.
Mr Mark David Cathcart **REP2-072-001**
Sub-Question
Nature cam footage of a water vole in the reed beds
Applicant's Response
The Applicant acknowledges the submitted footage. The video has been reviewed by a competent ecologist with 14 years of experience including licensed displacement of water voles for development projects. The ecologist has confirmed the animal on the recording is not a water vole and is most likely a bank vole.

Unlike water voles, bank voles are not a protected species under the Wildlife and Countryside Act 1981 (as amended). However the Applicant will endeavour, where reasonably practicable, to minimise disturbance to bank voles through standard mitigation, such as the supervision of site clearance by an Ecological Clerk of Works (ECoW) where appropriate.

Mark East

REP2-073-001

Sub-Question

The map NH Health Map provided by National Highways confirms that deaths from respiratory diseases in the parish of Hatfield Peverel is significantly worse than England average and given that National Highways acknowledge through their own modelling that air quality will worsen the position is clearly unacceptable. Furthermore it has been concluded that traffic along Main Road in Boreham will increase yet along the Street Hatfield Peverel they reach the decision that it will reduce. As Main Road and the Street are the same road B1139 it is puzzling how NH could have reached this conclusion.

Applicant's Response

On reviewing Figure 13.3 from the Environmental Statement [APP-238], the Applicant has noticed an error in how the data have been presented. Health data for Hatfield Peverel and Terling ward are shown in Table 13.7 (pp84-85) of Environmental Statement Chapter 13: Population and human health [APP-080]. This shows that the standard mortality rate for deaths from respiratory diseases in the Hatfield Peverel and Terling ward (2015 – 2019) is 118.4, which is not significantly different from the average for England (100). Footnote 2 in Chapter 13 [pp81, APP-080] explains that this is based on statistical significance, in line with the Public Health England document (2017) Technical Guide – RAG Rating Indicator Values, which provides further information on how it determines whether indicator values are significantly different from the average.

The traffic model indicates that traffic along Main Road (B1139) in Boreham is expected to increase, whereas traffic along The Street (B1139) in Hatfield Peverel is expected to decrease as a result of the proposed scheme. This is shown on Figure C.1 of Transport Assessment – Appendix C: Traffic Flow Diagrams – Communities and A12 Mainline [APP-256]. The reason for this

difference is due to the expected impact of the proposed closure of the junction 20a on-slip to the west of Hatfield Peverel. It is predicted that some traffic would travel west along the B1139 to junction 19 rather than use the proposed new junction 21 to access the A12. The majority of this traffic is predicted to be from the west side of Hatfield Peverel.

Sheet 1 of Figure 13.3 from the Environmental Statement [APP-238] presents both positive and negative health impacts for Hatfield Peverel. The population health effect of changes to air quality have not been presented at a community level, instead the assessment reports the findings for the totality of modelled receptors (paragraph 13.18.58 to 13.18.62 in Chapter 13: Population and health [APP-080]). This is because it is difficult to predict health effects attributable to air pollution at an individual level due to the large number of unknowns, for example regarding an individual's health status, susceptibility and likely level of exposure to air pollution over a lifetime. Scientific understanding of health impacts from air pollution tends to be based on studies of large populations.

The air quality assessment in Chapter 6 of the Environmental Statement [APP-073], which considered all changes in emissions with respect to the predicted total concentrations, does report an increase in pollutant concentrations within Hatfield Peverel at locations considered 'worst case' i.e. alongside the A12 and located around the junction of Maldon Road and The Street (B1137). It also reports a decrease on The Street at Receptor P10, related to the predicted reduction in traffic flows with the proposed scheme. Please refer to the air quality assessment results in Appendix 6.5 [APP-104] and Figures 6.9 and 6.10 [APP-213/ APP-214] of the Environmental Statement.

P10 is the only receptor where a benefit is observed in the air quality assessment on The Street. It is therefore relevant to cross reference findings reported in the Distributional Impact Report (DIR) [APP-267] which supports the beneficial impacts reported in the air quality assessment.

The results of the DIR are indicative and compliment the results of the Environmental Statement Air Quality Chapter [APP-073].

Mark East

REP2-074-001

Sub-Question

The National Highways Environmental Statement Human Health Baseline and Impacts Sheet 1 of 3 implies a positive health impact in Hatfield Peverel, but this must be considered against the modelling outcomes for Air Quality, which indicates a deterioration of Air Quality at all sensitive receptors including locations along The Street Hatfield Peverel as a result of the scheme, if approved. Read in isolation the Impacts Sheet might lead the reader to wrongly conclude that Air Quality is going to improve when the true overall outcome is a worsening of Air Quality in Hatfield Peverel

Applicant's Response

The positive health impacts for Hatfield Peverel relate to health outcomes associated with reduced community severance and reduced operational traffic noise, rather than air quality. Chapter 13: Population and human health [APP-080] assesses health effects associated with changes in air quality in relation to the overall results on modelled worst-case receptors, rather than at a community level (paragraphs 13.18.58 – 13.18.62 [APP-080]).

The air quality assessment Chapter 6 of the Environmental Statement [APP-073], which considered all changes in emissions with respect to the predicted total concentrations, does report an increase in pollutant concentrations within Hatfield Peverel at locations considered 'worst case' i.e. alongside the A12 and located around the junction of Maldon Road and The Street (B1137). It also reports a decrease on The Street at Receptor P10, related to the predicted reduction in traffic flows with the proposed scheme. Please refer to the air quality assessment results in Environmental Statement Appendix 6.5 [APP-104] and shown on Figures 6.9 and 6.10 [APP-213 and APP-214].

P10 is the only receptor where a benefit is observed in the air quality assessment on The Street. It is therefore relevant to cross reference findings reported in the Distributional Impact Report (DIR) [APP-267] which supports the beneficial impacts reported in the air quality assessment.

The results of the DIR are indicative and compliment the results of the Environmental Statement Air Quality Chapter [APP-073].

Mary Ann Lindsay

REP2-078-001

Sub-Question

Please see https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010060/TR010060-001748-D2%20Mary%20Lindsay%20(20032403)%20&%20John%20Lindsay%20(20032404)%20-%20B1023%20Accidents%20updated%202023.pdf for details

Applicant's Response

The Applicant thanks the Interested Party for the information provided on the three road traffic incidents.

These will be considered in the detailed design of the proposed scheme.

Messing and Inworth Action Group Limited

REP2-083-001

Sub-Question

Submission ID: 14091 Having been provided with a draft Statement of Common Ground from National Highways, members of the Messing and Inworth Action Group and the Messing cum Inworth Parish Council have reviewed the draft and noted comments on it in the attached/submitted SOCG Response document. Private and Confidential – Privilege Communication 13th February, 2023. Messing and Inworth Action Group Limited (MIAG) Messing-cum-Inworth Parish Council (McI PC) Position paper and response to documents received from National Highways Limited (NH) Generalities in order to reach agreement.

Applicant's Response

MIAG Comment	A12 response
The overarching objective for both McI PC and MIAG is that the Main Alternative be adopted. The failure of NH to properly consult, consider and review that Main Alternative lies at the root of the issues for discussion. The Gunning Principles have been ignored and McI PC has been marginalised by NH. This needs to be conveyed to Examining Authority (ExA) - either through this Statement of Common Ground (SOCG), or through direct input when these documents are submitted or under discussion. NH have manifestly attempted to take the high ground, both strategically and evidentially, and have in this draft SOCG document presented a biased and self-serving	The Applicant notes the comments made by the Interested Party. The Statement of Common Ground has been prepared in a form consistent for all stakeholders, where Statements of Common Ground have been considered necessary. The draft provided covered all issues submitted by the Interested Party in their Relevant Representation.

paper.	
a. For the purpose of this position paper, MIAG and McI PC shall be referred to simply as MIAG, unless the matter is more directly and specifically related to McI PC - nothing shall be construed to diminish or set aside each position	As confirmed at the Open Floor Hearings, the Applicant has agreed to work with MIAG to seek to enter into a joint Statement of Common Ground with MIAG and Messing Cum Inworth Parish Council.
b. MIAG does not believe the SOCG document as presented is an attempt to seek the common ground required by ExA and is, instead, an historical analysis of NH position: c. As such MIAG believe this is an invalid document and should be struck away:	The Statement of Common Ground was prepared to reflect NH's understanding of the position. The Applicant does not understand what "struck away" means. It is open for MIAG to comment on the draft or to refuse to take the document further.
d. MIAG acknowledges the need for swift resolution, but protests that after several months of opportunity for dialogue NH have left so little time to agree this. It came to the ExA attention only on 11th Jan, 2023, and only then did NH seek to establish this document by a series of hurried and very late email exchanges:	Noted. The Applicant did last offer to meet with the Parish Council and/or MIAG on 20 January when the SOCG was issued and 27 February 2023 to discuss the Statement of Common Ground. This offer remains in place and we would be keen to discuss the contents of the Statement of Common Ground with the Parish Council and/or MIAG.

e. MIAG believes this, in addition to all items and matters herein, is further proof of the institutional attitude of NH and its advisors to the campaign groups, other interested parties and elected representatives of the villages affected by NH plans for Junction 24:	The Applicant does not accept this statement.
f. MIAG recognises the benefits of a true and 'best endeavours' approach from both sides to this SOCG, and has made genuine attempts to facilitate the ExA process and requests:	The Applicant would encourage the Interested Party to accept the further meeting proposal as proposed in the email sent to MIAG via Ashfords LLP on 27 February 2023.
g. MIAG is concerned at the use of language in the SOCG NH submissions, which is neither neutral nor objective, and attempts to create by implication an 'acceptance by insinuation' of matters that are agreed, where in fact they are not:	The Applicant believes this SOCG has used language common to all the other SOCG it has issued.
h. It is noted that at no time has a representative of NH actually engaged with any part of this process, and all communications have been via paid beneficial sub-contractors of NH;	The Applicant can confirm that Phil Davie, as the National Highways Project Director for the scheme and has been willing and available to meet the Interested Party. The Project Director has been listed as a confirmed attendee in any meeting planned.
List of contents and Introduction: 1.1. 'List of contents'. MIAG does not accept that any appendices as presented by NH are acceptable. They are purporting to be of 'presentations' made to various participants in this SOCG but several such presentations were, in fact, never made.	Appendices A, B and C were shared during online meetings with the Interested Party. The Applicant included appendices D and E in order to show the information which was intended to be shared at scheduled

It is also true that these presentations demonstrate an unchallenged position for NH, and many statements made are unfounded, unsubstantiated and incorrect.	meetings. These presentations have been shared with the Interested Parties via email, as shown in the Record of Engagement (table 2.1).
Appendix A, Nov 2020: the first detail of Junction 24 is introduced and outlined. NH quotes several non-attributed sources for comment, and fails to refer to, or engage, with the note that McI PC already strongly cautioned that B1023 could not handle any more traffic. NH then state their 'preferred route' and all documents aim to support that. The traffic statistics show 2027 levels which have already been met. The document is biased and invalid;	This Appendix (A) was shared and discussed with the Interested Party in an online meeting held on 11 November 2020. The Applicant provided an assessment of the planned design at that stage, that it believes is valid and accurate.
Appendix B, March 2021: NH opine, in this document, again as an unchallenged presentation, that B1023 is of sufficient quality to 'cope' with increased traffic. Despite acknowledging a 'significant' increase in traffic – contradicting earlier notes. The situation of Inworth Church is used to dispel the Main Alternative. This is contradicted as events prove the NH plan failed to realise the significance of the unsolvable 'pinch points'. Subjective language is used to describe the Main Alternative which was determined as 'marginally' better in several respects to the NH plan, and yet this is still sufficient for NH to determine the Main Alternative is not	This Appendix (B) was shared and discussed with the Interested Party in an online meeting held on 10 March 2021. The Applicant has consistently said that, with intervention, the B1023 can accommodate the anticipated additional traffic and on that basis the considerable additional acquisition of land for a bypass cannot be shown to support a compelling case for the Applicant to seek powers to acquire land. This presentation provided a reasonable assessment of the

acceptable. NH equate distance of new road construction to cost, which is untrue and unsubstantiated, but is used by them to further justify dismissing the Main Alternative. MIAG is minded to refer to the actual documentation and commentary on Stonehenge – a view erroneously dismissed by NH Kings' Council (KC), at the Open Floor Hearings (OFH). This dismissal is part of the statistical conformational bias and false narrative created by NH;	planned design at this stage. At the meeting, the Applicant received feedback on the proposals and further comment were received at the Statutory Consultation, hence the update to include interventions on Inworth Road which were presented at the Supplementary Consultation. The A303 case requires some careful reading regarding alternatives, as it is not correct to assert that the court found that National Highways did not appraise alternatives correctly. The Court found that the Secretary of State did not consider alternatives in his decision letter. There was no criticism of National Highways' alternatives process.
Appendix C, April, 2021: Again an unchallenged and factually incorrect document. NH opine that their plan puts 'the right traffic on the right roads'. This plan clearly and palpably does not. NH believe flows on B1023 are 'suitable' despite acknowledging large increases which will result from their plan. Pinch point mitigations and suggestions are invalid and unworkable;	This Appendix (C) was shared and discussed with the Interested Party in an online meeting held on 6 April 2021. The Applicant believes that, with the proposed interventions included in the proposed Scheme the B1023 can accommodate the increased traffic and this is supported by the Applicant's traffic modelling which has been carried out fully in line with the requirements of DMRB.
Appendix D, Sept, 2022, 'Update': A very poor initial presentation creating alarm at Essex County Council (qv) before being presented to McI PC, resulted in this lengthy, unpresented document. It largely reviewed	Noted. This presentation and accompanying agenda was shared externally to the Parish via email on Thursday 15 September

history from the lens of NH and gave no sustainable value to the Main Alternative. With less than 7 days' notice, NH submitted over 2,700 pages of information for McI PC to review. As such the meeting could not rationally go ahead with any meaningful purpose. This document is therefore and effectively an NH 'internal' one as it was not presented. If it had been, McI PC would have challenged new traffic figures and their source/accuracy, statements about origins of new traffic in Tiptree, unsubstantiated and illogical cost projections and forecasts made without basis or justification. This continues the created false narrative and obsessive determination by NH to only present favourable statistics;	ahead of a meeting planned to take place with the Interested Party on Thursday 22 September 2022. The Applicant is confident that all of its traffic figures have been prepared fully in accordance with the requirements of DMRB.
Appendix E, July, 2022: This is no more than a historic rerun of all information presented by NH and contained no new or important information. NH were in fact so fearful of the possible reaction from McI PC that this presentation was not made.	This presentation and agenda were shared via email to the Parish Council at 19:11 on Thursday 7 July ahead of a meeting planned to take place with the Interested Party at 18:00 on Thursday 14 July 2022. The Parish Council postponed this meeting as the Applicant did not provide a full 5 days' notice of the presentation slides and agenda.
It is clear to MIAG that in adding these 'presentation' appendices, NH are attempting to portray a steady diet of consultation and dialogue with the McI PC – this is evidently not the case. The presentations from NH have	The Applicant acknowledges that there have not been any meetings held with the Interested Party since October 2021.

been marked by their myopia, fear, incompetence and a disregard for truthful analysis of the history of their consultation, which in reality is less than 2 years, and is laden with error and mistake; Within the time frames of these appendices, there have been no meetings between McI PC, MIAG and NH despite repeated requests from MIAG and McI PC. NH have cancelled a meeting at short notice (5 hours), failed to adequately prepare for meetings, and failed to adequately notify contents and intent. It is inappropriate that they should attach these documents.	The Appendices merely reflect the presentations either delivered to an/or issued to the Parish Council.
Position 1 - all NH appendices are deleted; Position 1a - appendices are replaced with MIAG reports and details as annotated; 1.2. The list of contents is unacceptable from, and including point 3, and will need to be taken into discussion when the entirety of the document is considered;	The Applicant is not convinced that the Interested Party has provided legitimate reasons to remove these Appendices. However, the Applicant is happy to include MIAG reports within the Appendices alongside the Applicants response to those reports.
Position 2 - the list of contents is not accepted; 1.3. Purpose of the Document. This document is not intended to consider the entire 'scheme' and is prepared to seek only to identify issues relevant to an SOCG between the parties appending their signatures. This SOCG is	The Applicant is happy for this Statement of Common Ground to relate to junction 24 as requested. The wording of 1.1.4 of the Statement of Common Ground is

exclusively in relation to Junction 24 and the interests of MIAG; 1.4. Point 1.1.4 will suffice for the entire clause to read up to the word 'disagreement'; 1.5. Clauses 1.1.1, 1.1.2 can be deleted in their entirety. Clause 1.1.3 should follow 1.1.4; 1.6. A new 1.1 should simply state the intended aims of the identified parties in respect to Junction 24;	standard wording included in all Statements of Common Ground. The Applicant would be keen to keep this as it is factually correct and consistent with all Statement of Common Grounds.
Position 3 - the purpose and description of this SOCG should be more brief, concise and accurate for its sole purpose; Parties of this SOCG: 1.7. Clause 1.2.2 can be ended after 'road network'. It is known to the ExA who NH are, and this is simply an exercise in dismissive power; 1.8. Clause 1.2.3 needs to explain that McI PC are the elected representatives of the two villages and represent the residents of those villages through the electoral process. The current explanation needs to be extended to emphasise its role; 1.9. There is no descriptor of MIAG. Full detail of its purpose and operation need to be added;	The wording of point 1.2.2 is standard wording included in all Statements of Common Ground. The Applicant would be keen to keep this as it is factually correct and consistent with all Statements of Common Grounds. For point 1.2.3, the Applicant is happy to include additional wording to describe both Interested Parties. The Applicant asks for wording to be agreed by the Interested Parties and sent to the Applicant for inclusion within the Statement of Common Ground.
Terminology: 1.10. Clause 1.3.1. This needs to simply say 'agreed', 'not agreed' and 'under discussion'. There is no need for amplification and it is an obscuring tactic; 1.11. Clause 1.3.2. This clause is to be deleted in its entirety. NH cannot have agreement to matters not raised herein, nor for any future positions that may become visible as the process continues. This is a defining	The Applicant notes the comments made by the Interested Party. This wording has been included in all Statements of Common Ground drafts.

document valid only within matters expressly referred to, and dealt with, by it;	With regard to 1.3.2, if there are matters not within the Statement of Common Ground that the Interested Party would like to be included, they can be sent to the Applicant.
Record of Engagement: 2.1. The opening paragraph is unacceptable. NH have taken the opportunity to appear to have consulted over tracts of time with the specific parties hereto, when, in fact, this is not the case; Status - not agreed;	The Applicant is not convinced that the Interested Party has provided legitimate reasons as to why this paragraph is unacceptable. Could the Interested Party please provide evidence to support its statement?
2.1.2 This record should only show emails, forums and communications between MIAG/McI PC; Status - not agreed	Table 2.1 includes a record of all emails, forums and communications between the Applicant and Messing Cum Inworth Parish Council. Table 2.2 includes a record of all emails, forums and communications between the Applicant and Messing and Inworth Action Group. The Interested Party's position is unclear to the Applicant. Could the Interested Party please confirm that they are asking for these two tables to be combined?
Table 2.1. From 10.08 2016 up to and including 24.08 2020, must be deleted. The first 'communication' specifically for Junction 24 is thus identified at	The Record of Engagement table shows all communication held between the Interested Parties. This includes emails, meetings and forums.

11.11.2020; The table breaks into columns, and the heading for the 3rd column is incorrect. 'Key outcomes' is not recognised nor acceptable. All of the subsequent dates and communications are aimed, slanted and confirmationally biased to NH. This is not language of 'best endeavours'	The Applicant is happy to review the wording of the heading on the third column. However, the Applicant also notes below, that the Interested Party asks for this column to be removed. Could the Interested Party please confirm which they would like?
Communication dates are matters of fact, and this table should be used only to illustrate those dates and demonstrate to ExA the depth and longevity (or otherwise) of communication. This table is not the SOCG. All notes annotations and other observations should be deleted; Mention of Appendices is also to be deleted. See extensive notes (above). 2.1.7. This is not correct. The communication should extend into 2023, and also include the agreement of McI PC as they are expressly named in several communications. MIAG believe this should not be part of the working document, and is simply an agreed record;	The Record of Engagement is a table that is standard across all Statements of Common Ground drafted. The Applicant believes that this provides a useful guide to the Examining Authority. However, if the Interested Party wants this column (Key Topic discussed and key outcomes) to be removed then the Applicant is happy to remove it. The Applicant is happy for this to be an agreed record.
Issues: General; NH have noted contemporaneous views and positions. This need for a division between the two shared positions is not clear to MIAG and McI PC. All matters are germaine to both parties; 3.1 Clauses in NH document 3.1.2, 3.1.3 and 3.1.4 can, and should be, merged, as this is an exploration towards an SOCG. It is the view of MIAG that this is disingenuous on the part of	The Applicant is happy to combine the views of the two Interested Parties into one, but we would ask that both Interested Parties confirm what that combined view would be. The Applicant would like to note that column 3 (MIAG/MCIPC

NH; Now using NH table references as 'ref' point: As per note 3.1 (above) this should not be captioned as 'one' of the parties. In generality therefore, a note to keep McI PC and MIAG advised will suffice; 2.1. All documents prepared by MIAG in relation to Main Alternative are sited and included here by reference to new appendices. Status – to be agreed when all matters are agreed;	Position) in tables 3.1, 3.2, 3.3 and 3.4 are for the Interested Party to complete. If the Interested Party would like to respond to any of the Applicants comments in column 4 (National Highways Position), then they can do so in column 3. This can be done by updating the version shared with Ashfords LLP and returned to the Applicant.
MIAG does not believe NH have consulted clearly and produced clear, unambiguous designs. (Appendix D, E, F, G, H and L). MIAG does not believe NH have undertaken fair and open discussion and dialogue (Gunning Principles), (appendix H and L), and have sought to justify a pre-determined position. NH have provided no plausible explanation for increases and variable forecasts in traffic flow through Tiptree (TPA report). Tiptree Parish Council (TPC) do not accept the findings or traffic survey details of NH in this regard;	The Applicant has responded to these points in subsequent responses for each Appendix submitted.
MIAG through its Road Design and Traffic Engineers, (appendix C and TPA report), dispute the costings attached to NH calculations which we believe are unfounded and demonstrate persistent confirmational bias;	The Applicant has responded to Appendix C and TPA report in sub-question reference REP2-083-004 and REP2-085

MIAG dispute the calculation for more land acquisition from NH and have repeatedly demanded accurate figures for both their Junction 24 Plan and the Main Alternative, (appendix G). Explanations of the need to 'move' the A12 in the Prested Hall area, following the failure of the Marks Tey development, the original justification for this, have not been forthcoming. Status - not agreed;	The Applicant would like to note that column 3 (MIAG/MCIPC Position) in tables 3.1, 3.2, 3.3 and 3.4 are for the Interested Party to complete. If the Interested Party would like to respond to any of the Applicants comments in column 4 (National Highways Position), then they can do so in column 3. The Applicant has responded Appendix G in subsequent response sub-question reference REP2-083-008. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground.
2.2. Generality note refers: MIAG disputes all traffic figures presented by NH which have varied in frequency, vehicle type and traffic times as NH have moved to justify their own shifting arguments. (Appendix L and TPA report).The complete abrogation of responsibility for mitigations of known areas of major difficulty is unacceptable; This statement is incorrect. MIAG have responded, and ECC, in their representations, have noted their concerns at suggested outline mitigations. MIAG	The Applicant has responded Appendices H and L in subsequent sub-question reference REP2-083-009 and REP2-083 -012. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of

does not believe that mitigations are possible in almost all instances and therefore NH are avoiding discussion on matters that directly affect the community. (Appendix H). Status - not agreed;	Common Ground.
3.4. Generality note refers; 3.5. Generality note refers;	Noted.
4.1. MIAG disputes the methodology and will demonstrate failings of NH through further Relevant Representations and expert analysis (TPA Report); Status - not agreed;	Please can the Interested Party confirm how they dispute the methodology in regard to traffic modelling?
MIAG disputes the traffic flow figures between 3.5 as noted and 2.2 as noted, and believes NH have ignored readily available evidence of the errors in their figures; Status - not agreed;	The Applicant asks for the evidence of errors to be provided to it.
NH attempt to 'address' concerns is not accepted. Many concerns remain unanswered or unsatisfactorily dealt with. (Appendix L). MIAG believe this is in breach of the requirement for fair and reasonable discussion and open minded attention to concerns; Status - not agreed	The Applicant has responded Appendix L in subsequent sub-question reference REP2-083-012.

MIAG note that NH has failed to provide adequate explanation and is now seeking to redraft earlier explanations which are not yet available. MIAG protests in the strongest terms at this repeated failure. MIAG would ask the ExA to clarify how an SOCG can be achieved in such a short time with inadequate preparation from NH; Status - not agreed;	The Applicant has published the Traffic Model Changes note which is now available: Appendix OFH1A - Explanation of Traffic Model Changes of Deadline 1 Submission - 9.13 Applicants Response to Open Floor Hearing 2 - Rev 1 [REP1-012] The Applicant does not accept the criticism made.
4.2. A typo exists that does not clarify the attachment of the 'refinement of the initial…'. It would be appreciated if this was clarified; Status - under discussion;	The reference here should be Annex A.
4.2 In its entirety is not accepted by MIAG. The Applicant has not undertaken a fair and reasonable analysis and nor has it approached the Main Alternative (appendix A, C, D, E, F and G), objectively for its assessment; Status - not agreed;	The Applicant has undertaken an objective assessment of the Main Alternative proposal and other bypass options in Appendix 3.3: Junction 24, Inworth Road and Community Bypass Technical Report [APP-095]. The Applicant has responded to each Appendix submitted in subsequent responses.
4.3. MIAG do not accept the 'small' observation and believe the traffic figures presented by NH are incorrect. This will be detailed in the Relevant Representations made by MIAG technical experts (TPA Report), and legal	The Applicant has reviewed the TPA Report submitted, and a response has been provided in relation to this, under reference [REP2-085]. The Applicant is confident in relying on its traffic assessments which have been prepared fully in accordance with

representatives; Status - not agreed;	the requirements of DMRB.
MIAG challenge this statement and NH are incorrect to comment on ECC position. Further ECC are not signatories to this document. MIAG believe the NH position to be incorrect; Status - not agreed;	The Applicant has referred to correspondence received by Essex County Council as the highway authority which may be of interest to the Examining Authority. The local highway authority's position is relevant to the content of the SOCG and this is best evidenced by correspondence from the local highway authority that the parties have seen.
4.4. Pinch Points; MIAG has concerns. This is not 'also', as the connotation demeans and derogates the seriousness of this, and all matters. MIAG challenges the language and use of implication implicit in NH phraseology, and will seek to amend and correct this throughout the document. (qv; g - Generalities); Status - not agreed;	For clarity, the phrase 'also' was provided in the Interested Party Relevant Representation document and as such, the Applicant merely copied the text. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground.
Assessment of noise and Vibration; MIAG are not seeking confirmation of work done anywhere but within the confines of their remit; Messing; MIAG do not accept that adequate research and investigation by NH of these issues has been undertaken, especially with specific reference to building foundations and historic monuments	The Applicant explains the assessment carried out in relation to noise and vibration is section 4.5 of table 3.4. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of

(Appendix K); Status - not agreed;	Common Ground.
MIAG believes that the scope of NH enquiries and research of these matters was limited to an extremely small geographic area with NH failing to account for the wider impact to Messing and Inworth from the plans put forward by NH. This will be detailed in MIAG technical reports, and modelling of 'swept path' issues (appendix E), which NH have failed to address; Status - not agreed;	The Applicant has responded Appendix E in subsequent sub-question reference REP2-083-006. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground.
MIAG does not accept 'Residual Effects' as justification for NH to avoid the consequences of the actions in creating Junction 24 as their plan indicates. (Appendix D, E, F, G and L). MIAG firmly believe, and technical evidence will show, (TPA Report), that many of the anticipated problems and faults of the NH plan will be avoided by the adoption of the Main Alternative (appendix J); Status - not agreed;	The Applicant has responded to each Appendix submitted in subsequent responses. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground.
Noise and Vibration annotation; MIAG does not accept that adequate research and analysis of the Junction 24 plan by NH has reviewed the 'ripple effect' of damage by	The Applicant has responded to each Appendix submitted in subsequent responses.

noise and vibration caused by vastly increased volumes of traffic, as well as its speed and scale. (Appendix D, E, F and L). MIAG believe that the narrow vision of road responsibility shows NH blinkered to the consequences of their plan which will cause actual harm, damage and destruction; Status - not agreed;	As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground.
MIAG disputes the traffic figures and disputes the generality of the findings which it believes have been amended to suit a pre-determined view. Technical reports (TPA Report), and legal representations will clarify the position of MIAG; Status - not agreed;	The Applicant has responded to each Appendix submitted in subsequent responses.
MIAG notes that the figures cited by NH at this point differ from those already cited and that this creates an 'illusion' of 'small' increases. The traffic flow and consequent issues are substantially higher that NH have incorrectly stated; Status - not agreed;	As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground. The Applicant has produced Appendix OFH1A – Explanation of Traffic Model Changes [REP1-009] which outlines the reason for changes to the traffic model.
No similar research of comparable data has been compiled by NH for the Main Alternative. MIAG believe this illustrates the position of fixation from NH and statistical leger de main it has persistently engaged in; Status - not agreed;	The criticisms of the Applicant's approach are not accepted. The Main Alternative is not the Applicant's proposals and the Applicant has not taken the proposal forward for a number of reasons, including that there is no justification nor compelling case for the extensive land assembly required for the Main Alternative as shown on 6.3 Environmental Statement -

	Appendix 3.3: Junction 24, Inworth Road and Community Bypass Technical Report [APP-095]. On that basis there is no need for the Applicant to carry out the exercise suggested by MIAG. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground.
Inworth; NH again uses the pejorative term of 'just above' (qv; g - Generalities). In the view of MIAG it is either above or it is not. This use of language is deceptive and unacceptable. The treatment of the householders concerned is of very grave significance, and MIAG are deeply concerned at the flawed rationale and inadequate consultation undertaken by NH with those specific homeowners; Status - not agreed;	The Applicant believes the statement complained of accurately reflects the position demonstrated by the evidence. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground.
Messing and Inworth – NH cites DMRB matters and MIAG will firmly dispute the rationale behind all design codes used by NH (appendix L), which are inconsistent, illogical and incorrect. MIAG technical reports will highlight this, especially in relation to the integral decisions made by NH in regards to the proposed Inworth Roundabout, its position radii and approach road definitions especially the 'segregated left turn lane'	The Applicant's approach to the junction design was further explained in Open Floor Hearing 1. The Applicant has responded to each Appendix submitted in subsequent responses.

(SLTL), (appendix D, F, G, and L); Status - not agreed;	
MIAG see the closing statements of NH in 4.4 to be self-serving and unnecessary. They are of no value. This further adds to MIAG view that this is an invalid document. This must be deleted in its entirety; Status - not agreed;	The Applicant does not believe the paragraph needed deletion. MAIG's position in not agreeing the paragraph can be noted in the document.
4.5. This is neither a statement or position analysis. NH need to clarify what they intend by this statement; Status - under discussion;	Could the Interested Party please provide clarification as to which part of 4.5 they believe needs clarification? .
Allowing for the lack of clarity and need to resolve, MIAG state once again that scheme wide observations are of little value to the SOCG and as such all 3 paragraphs of general activity and all NH document references need to be deleted; Status – not agreed;	The Applicant has provided information on how the assessment has been carried out across the scheme which include junction 24 and settlements within Messing Cum Inworth Parish boundaries.
Air quality assessment- Messing and Inworth; This paragraph is contradictory and non-specific. It does not aid in the understanding of this situation, and MIAG feel that NH work in this matter is inadequate and 'general' in nature and bears no direct relevance to the SOCG. No specific details have been calculated for Messing and Inworth, especially the PM2.5 impact at Messing School, which borders the roads subject to substantial increases in traffic type and volume; Status - not agreed;	Please can the Interested Party confirm how the Applicants air quality assessment is inadequate? The Applicant's air quality assessment reports that there are no predicted exceedances of the air quality objectives (AQO) for PM10 or PM2.5 in any of the modelled scenarios (Chapter 6 of the Environmental Statement [APP-073]).

	Air quality modelling for specific receptors is undertaken in accordance with traffic criteria in DMRB LA 105. None of the residences in Messing met the criteria for modelling in DMRB LA 105 and therefore air quality issues are not anticipated in this area. The nearest roads which met the modelling criteria and were therefore included in the modelling assessment are 1.5km away from Messing. The highest annual mean NO2 concentration upwind of Messing was 15.7 µg/m3 (Receptor R122). It is suspected that the concentration in Messing would be close to the background concentration of 11.6 µg/m3 . These concentrations are well below the annual mean standard for NO2 of 40 µg/m3 .
MIAG do not accept the premise and statement of the penultimate paragraph. MIAG will further detail this in their technical reports, (appendix A, C, and L), and expect NH to approach this matter with the specific seriousness it deserves and which they have so far failed to do by hiding in generalities; Status - not agreed;	The Applicant has responded to each Appendix submitted in subsequent responses.
MIAG do not accept that 'there will be no significant effects to human health' and demand to know the medical qualifications for the basis of this assessment from 'general observation' and 'desk top' modelling which is cited by NH as justification for this statement. NH are not medical experts and thus cannot cite unattributed medical	The Applicant has provided full details of the human health specialists in Environmental Statement, Chapter 13 – Population and Human Health [APP-080]. This assessment has been undertaken and reported by a team

evidence; Status - not agreed;	of competent population and human health specialists. The competent expert responsible for the assessment is an Associate Director, Chartered Environmentalist, full member of the Institute of Environmental Management and Assessment (IEMA), and associate of the Faculty of Public Health, who has an MSc in Environmental Management and has recently completed a Master of Public Health degree (December 2021). The competent expert has over 19 years' experience of undertaking population and human health-related assessments for major infrastructure and linear projects, including highways, for which the process of Environmental Impact Assessment has been required.
MIAG does not accept the validity of the justification based on 'scoping criteria', and challenges NH to define their terms of reference and statistical basis for their assertions, together with details of full medically qualified assessments Status - not agreed;	As above.
4.6. Road Safety; MIAG point to the generality of incorrect traffic flow statistics used by NH, and to the lack of research done for non-vehicle road users on all surrounding roads into Messing. At no point have statistics been used to question NH by MIAG in relation to fatality numbers. This is in part because volumes of traffic have been low. Historical analysis is not the prime	As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground. The Applicant has responded to each Appendix submitted in subsequent responses.

concern for safety, and NH have studiously and continuously ignored the increased safety hazards. MIAG have, however, through its expert engineers at Transport Planning Associates (TPA report), detailed the nature of Road Traffic Accidents in this area. NH have disregarded the nature of the roads that will inevitably lead to increases in traffic collisions, (appendix A, D, E, and L), RTA's and possibly personal injury. MIAG believe NH are misunderstanding MIAG; Status - not agreed;	
MIAG believe this spurious use of fatality and traffic incident statistics is designed to mislead the ExA, and bears no relevance to matters raised by MIAG. This entire view of NH should be deleted; Status - not agreed;	The position recorded is the Applicant's view. As such it should be recorded in the SOCG which can record that MIAG does not agree. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground.
4.7. This is a NH SOCG draft. This apparent statement from MIAG which is not recognised, makes no sense in this format. NH need to explain/clarify. All further comment on this reference is thereby in abeyance until NH clarify; Status - under discussion;	For clarity, this text was provided in the Interested Party's Relevant Representation document and as such, the Applicant merely copied the text from MIAG's own document.

4.8 Flooding on local roads; MIAG do not believe any adequate analysis has been undertaken by NH in regard to the benefits of the Main Alternative in this regard. (Appendix J). MIAG believe that NH research and determinations are inadequate. Technical reports (TPA Report), will illustrate the benefits of the Main Alternative and cost savings associated with the adoption of that plan; Status - not agreed;	The Applicant believes it has sufficiently demonstrated why there is not a compelling case for the Main Alternative. The Applicant has responded to Appendix J in subsequent sub-question reference REP2-083-010. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground.
4.9. This is totally inadequate and without substantive merit as a mitigation proposal. This is a site of ancient historic value, and 'replanting' trees alone is totally unacceptable. Again, MIAG point to the Main Alternative to protect and save not just the church, (appendix J and K), but its immediate historic setting and environment; Status - not agreed;	The Applicant has responded to Appendix J and K submitted in subsequent responses. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground.
MIAG also note that NH has failed to make contact with the guardians of Messing All Saints Church, another	The Applicant is happy to meet with the relevant party, if MIAG can identify who should be contacted. The Applicant has not

ancient site. This building is on a bend with inadequate 'swept path' room and will face damage to its walls and infrastructure. (Appendix E and K). No one from NH has made any attempt to investigate this matter; Status - not agreed;	identified Messing All Saints Church as being at risk of damage and so, has not been contacted as an Interested Party. However, the Applicant can confirm that Messing All Saints Church were contacted by letter in October 2022 to invite them to the in-person event on 21 October 2022 at Messing Village Hall.
4.10. MIAG have made it clear to NH that this element of the legal analysis will be provided in due course to the ExA by the appropriate deadline. Status – under discussion;	The Applicant has now seen the submissions made at deadline 2. It does not agree with the analysis provided, save for the correction of minor errors.
4.11. The Main Alternative has not been adequately examined as a viable alternative to this element to the NH Junction 24 plan, and NH continue to assume that no further justification is required for their activities. (Appendix A, C, D, E, F, G and L). MIAG strongly dispute the need, validity of argument and the approach taken by NH; Status - not agreed;	The Applicant has undertaken an objective assessment of the Main Alternative proposal and other bypass options in Appendix 3.3: Junction 24, Inworth Road and Community Bypass Technical Report [APP-095]. The Applicant has responded to each Appendix submitted in subsequent responses.
4.12. The detailed engagement has been as a direct result of NH failures in this regard. All of the Gunning	The Applicant has responded to each Appendix submitted in

Principles have been breached, (appendix H), as have the NH own codes of conduct in regard to transparency and open minded fair review (qv codes of conduct request from MIAG). The lists of communication cited at 2.1 and 2.2 above show the scale to which MIAG felt ill advised, ill consulted and ill informed. Officers of NH attempted to arrange secret private meetings, (qv written representations of oral presentations at OFH 1 and OFH 2), and resolutely refused to give workable information either to ECC or MIAG; The MIAG strongly disputes the NH 'painted picture' of reasonable dialogue, and instead points to failed meetings from inadequate preparation, contradictory traffic information and statistics, allegations about ECC senior officials, marginalisation of McI PC, specifically but not limited to, and as illustrative in intent, in the 'information event' on Friday 21st October 2022. (Appendix H). This was in contravention of a direct request from McI PC that this meeting should not go ahead without prior agreement and information being supplied. This marginalises and minimises the vital role of the elected representatives of the villages. (Appendix B); NH figures, which are disputed, indicate that 26 people attended. MIAG figures, which are accurate, note 22 attendees. All but 3 left in a state of considerable confusion and upset caused by the inadequate and ill prepared NH attendees. (Appendix B and H); NH repeatedly note meetings arranged and 'faux	subsequent responses. Regarding Appendix B, the Applicant has not received these figures. The Applicant is unaware of "all but 3" attendees leaving the Public Information Event held on Friday 31 October "in a state of considerable confusion and upset." Following the event, the Applicant has not received any communication from any attendees to this regard.

consultations' prior to their own release of any detailed plan of Junction 24. As noted above, this should be deleted; Status - not agreed;	
MIAG note that NH felt the need to comment on membership/directorship of the McI PC and MIAG. This further illustrates the complete lack of knowledge of NH in dealing with two relatively small villages and their populations. Most committees throughout the communities share members or personnel - this is the only way small villages work. The legal position of McI PC should be well known to NH, as should the perfectly legal structure and full declarations made by any member of both MIAG and McI PC. This focus is unacceptable and distracting from the core failures of NH; MIAG note once again the patronising and derogatory use of language employed by NH and its advisors; At no time have McI PC nor MIAG been unwilling to attend or establish meetings with NH. On several occasions request and parameters were required as a pre-condition of meeting. These were largely in terms of presentation materials and reasonable time to study them. (qv Written representations following OFH 1 and OFH 2). At no point have McI PC nor MIAG, cancelled a meeting at short notice, nor failed to attend any established meeting. As the communication table at 2.2 shows, both those parties hereto have always remained active and diligent in	The Applicant has merely outlined the history of engagement with the Interested Parties. the Applicant remains willing to engage with both the Parish Council and MIAG. .

pursuit of truthful, honest and open answers from NH; Status - not agreed;	
4.13. MIAG disputes this opening paragraph as factually inconsistent and incorrect. Status - not agreed;	Please can the Interested Party confirm how this statement is incorrect?
Once again NH are using pejorative language and MIAG disputes the use of the words 'very small' in relation to effects on vehicle speeds. NH have failed to cite relevant traffic enforcement statistics available from Essex Police, and this failure inures to the continued bias that NH seek in all their use of statistics; Status - not agreed	The Applicant does not accept the criticisms made. The Applicant will assume this item will remain "not agreed".
4.14. NH will know that MIAG has consistently raised concerns about the Inworth Roundabout, including submitting a detailed technical review to both ECC and NH. (Appendix D, F, and G). It is clear that whilst some amendments were made to the NH design following those submissions, no acknowledgement was made by NH as to the source. It is also noted that MIAG Transport and Road Engineer reports will again detail failings in the NH plan – failings that have been repeatedly pointed out. (Appendix L); MIAG notes that the implication in NH statement that 'comments were made at hearings on 12th	The Applicant has responded to each Appendix submitted in subsequent responses. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground.

January', were as if this was the first time such comments have been made. This is both disingenuous and misleading; Status - not agreed;	
4.15. MIAG has raised consistent concerns over the NH plans and it is disingenuous and misleading to indicate that these were only made at the hearings on 12th January. (Appendix A, B, C, D, E, F, G, H, J, K and L); Status - not agreed;	The Applicant has responded to each Appendix submitted in subsequent responses. As outlined earlier in this response, the Interested Party can update their position in column three of the Statement of Common Ground.
4.16. Again, NH are using assumptive clauses to indicate that the ExA has granted approval for the DCO. (Appendix H). This is clearly and evidently not the case, and MIAG object to these notes. Once again, it is noted they are neither objective nor reasonable and are obviously biased; Status - not agreed;	The Applicant has not assumed that the Secretary of State will make the Order sought by the Applicant.
Observations about A556 are fatuous and a waste of ExA process. This should be removed. Status - not agreed;	The example given for the monitoring at the A556 were to assist is demonstrating how post-opening monitoring operates for a National Highways project. It believes the ExA will benefit from being informed of precedents.

REP2-083-002

Sub-Question

Appendix A; MIAG – Initial report on Messing Roads, Feb, 2022; Compiled and researched by the Messing and Inworth Action Group Overview This report is to review the effect of the National Highways (formerly Highways England) proposal for the improvement of the A12 and the construction of a new junction 24 connected to the B1023 (see the map in Appendix A). The report summarises the existing layout and condition of the lanes leading to and within Messing village. The area covered by this report is from the proposed feeder roundabout on the Inworth Road (near the short red arrow – see map in Appendix A), along the Kelvedon Road through the village at The Old Crown Public House and School Road, New Road, Lodge Road and Harborough Hall Lane. It is our belief that this scheme, as proposed, will create increased and unsustainable traffic flows through our tiny ancient village. This report has identified dangerous road conditions, unsuitable road surfaces and hazards for all the roads surveyed and identifies substantial safety issues, as well as structural problems. We believe the proposal will endanger residents, local road users, (both motorised and non-motorised), to extreme hazard and life threatening risk and danger. Our report will show the impossibility of implementing the new Highway Code, which we believe will exponentially increase the danger to all road users. National Highways Proposal for Junction 24 The Proposal, from National Highways, (NH), which this report extensively references, was to 'Construct a New Junction 24 on the A12, south of Inworth Road. (To) Provide slip roads terminating where the Messing Road meets Inworth Road so that all traffic joining or leaving the A12 would use the Inworth Road'. Refer to the map in Appendix A. The consultation documents make no referral to the effects of the proposed scheme on the lanes leading to Messing or any other surrounding lanes. Effect of Proposals on traffic through Messing is a small village with a number of listed buildings, some of which date from the 16th and 17th centuries. The centre of the village is a Conservation Area, and many properties are directly on the street with narrow or no pavements. Many of the older buildings will have minimal foundations and can be more prone to damage from vibration caused by heavy traffic. National Highways initially denied having any figures for traffic forecast through Messing, and asserted that the forecast traffic increase was 'slight'. Following multiple complaints both to them, and the Department for Transport, the following figures were provided Kelvedon Road (between Messing & Inworth Road) AM peak PM peak Without scheme 38 45 With scheme 133 109 Change 95 64 The roads through Messing are already struggling to cope with the significant increases in traffic seen in recent years arising from developments to the east of Messing, which use Messing as a cut through from the B1022 Maldon Road to Kelvedon station and the westbound A12. More developments, not all of which have been considered by National Highways (e.g. Middlewick Ranges), will further exacerbate the problem. It is inevitable that the increased traffic on the B1023 and congestion in Tiptree will force drivers to seek

alternative routes and satnavs will direct traffic into the narrow lanes as a shortcut to the main Maldon-Colchester road. NH have only recently admitted that they forecast that morning peak traffic (defined as vehicles, which means multi axle and HGV as well as cars and vans), on the Kelvedon Road out of Messing will increase by a factor of 3.5x, and evening peak traffic by a factor of 2.5x. It should be noted that the lanes do not meet the standards required for single track roads, have very few passing places and there are a number of blind bends and junctions. Survey of Existing Roads The report contains a breakdown, road by road, of all the matters of concern that we wish National Highways to consider. Refer to the street map in Appendix B for the locations of individual roads. The surveys can be found in the Appendices to this report and start from the T-junction at the centre of the village outside the Old Crown public house, unless noted otherwise. Pictures have been used to show examples of the extent that the dangers already exist and will be made far worse by this proposal. The lanes around Messing are widely used by walkers, cyclists and horse-riders. The new Highway Code gives priority to horse-riders, cyclist and walkers over all other vehicles. Specifically, the new Code requires a minimum gap of 2m when vehicles are overtaking or passing pedestrians or horses and 1.5m when passing cyclists. This cannot be achieved for large lengths of the lanes other than in isolated passing places. No roads have 'Passing Place' signage. No roads have signage which warns that the roadways are not suitable for multi-axle or HGV traffic. Lodge Road is prone to flooding and snow drifting. It is not gritted by Essex Highways during the winter months, and there are no warning signs. Kelvedon Road has a number of blind bends and hazardous conditions for non- vehicle road users, as well as motorised traffic, with widths as narrow as 2.8m for hundreds of metres. No road surveyed has `safe haven' or `refuge points'. There are no marked and safe crossing points. The Main Alternative Messing Cum Inworth have put forward a proposal for an alternative to Junction 24 that joins the B1023 south of Inworth village, and also north of the A12. (Refer to the map in Appendix B). This proposal would divert all traffic away from Inworth and Messing villages, greatly reducing the problems of increased traffic through the villages and rural lanes. The route would for the most part follow the line of the former railway and pass to the west of Inworth village before re-joining the B1023 south of Inworth. This alternative route would have the effect of diverting traffic away from Inworth itself where road widening and drainage works would be required under the NH proposal to bring the road up to standard. The roads through Inworth and Messing would therefore only serve local traffic and could be signposted as only such. It is understood that NH have not considered this proposal in any detail at this point in time. Actions Required by National Highways 1. Full review of the traffic impact of the current published proposal on all surrounding roads and the capacity of these roads. 2. Full consideration of the alternative route proposed by Messing Cum Inworth Parish Council including traffic predictions and costings 3. In the event that the National Highways proposal is adopted

and construction begins, how will National Highways and Essex Highways address the following matters: a. Pedestrian and non-vehicle safety as there are no pavements, no safe havens and the road speed is derestricted, i.e. 60mph b. Blind bends and unsighted oncoming traffic on a single lane road c. Concealed entrances and accident blind spots d. Width of roads at 2.4m to 4.5m with no passing places and no signage e. Absence of legally required passing places in sight of each other f. The possibility of face to face HGV or multi-axle traffic with no possibility of reversing and unable to pass due to inadequate road width bordered by deep ditches and gullies g. Verge erosion, trespass and damage as traffic 'forces' passing places h. Weight limits on narrow bridges to be assessed. There are currently no warning signs after vehicles are on these roads, with no turning points, and no alternative to avoid these bridges i. The centre of Messing is a conservation area – how will the structural safety of buildings and walls be maintained? j. Buildings, houses and telegraph poles are within 25cm of road edge. How will their safety and integrity be guaranteed? k. How will the safety of children be ensured where there are no pavements in most of the roads, no crossings, and the road is blind to on-coming traffic? l. How will pollution and air contamination especially at the school and village playing area, be controlled and kept at low levels? Conclusions As the attached surveys clearly demonstrate, all the roads leading to Messing village are for the most part well below the 5.5 metre width recommended as the absolute minimum for two cars to pass in safety at low speed. There are many pinch points where the roads are well below the recommended width of 3.5 metres for a single-track road. From a safety perspective, the roads are in many places between 3.5 and 5.5 metres, giving rise to the increased risk of uncertainty about whether two vehicles can pass each other over a length without passing places, and leading to the extensive damage to roadside verges and significant encroachment on private land that we have seen and illustrate. Messing residents report numerous instances of lost wing mirrors and more serious collisions along these narrow roads, not to mention near misses. Major problems already arise whenever a car meets a bus, HGV or tractor coming in the opposite direction. The research also revealed how close the road edge is to old and historic properties. There are concerns about vibration damage and associated problems to these buildings. Air pollution is of special concern from the roads in close proximity of the village primary school and of the children's playground outside the village hall. The subsequent increase in danger to all road users is a direct consequence of this proposal. It is evident that the proposed increases in traffic and vehicle flow will additionally further deteriorate the condition of the roads. The safety of the roadway is already compromised and the proposal will cause further extensive erosion of land and inevitable trespass onto private property. List of Appendices A) Map of Area showing main traffic routes and new proposals B) Map of Area showing the alternative proposal C) Map of Messing showing road names D) Survey of Kelvedon Road from the junction with the B1023 to the junction with New Road E) Survey of

Harborough Hall Road F) Survey of Kelvedon Road from the junction with School Road to the junction with New Road Survey of The Street G) Survey of Lodge Road H) Survey of New Road from the junction with Kelvedon Road to the junction with School Road I) Survey of New Road from the junction with School Road to the junction with the B1022 J) Survey of The Street to Kelvedon Lane (Burial Ground) K) Survey of School Road Appendix A Map of Area showing main traffic routes and new proposals Appendix B Map of Area showing alternative proposal Appendix C Map of Messing showing road names Appendix D Survey notes for Kelvedon Road from Junction of B1023 to New Road Triangle. Research conducted on Monday 14th February 2022 The mouth of the entrance to Kelvedon Road from the B1023 is obscured by dense hedges to each side. It is 9.20m wide. By 8m there is a broken illegible street sign, hidden in hedges. By 25m the road has narrowed to 4.15m, there are no signs or passing places. By 86m the road is 4.5m with high dense hedges and embankments obscuring all sight of on -coming traffic. By 134m there is extensive damage and trespass to private land as vehicles are forced to drive up banks and destroy verges. By 174m the road is 4.15m wide with no road markings on either side as the road approaches the bridge. By 181m there is a private drive that is used as a passing place. By 194m the narrow bridge, unsigned for weight or width restriction is 5.7m wide. It is bordered by concrete and metal posts with telegraph poles at 60cm and 30cm of the edge of the road. There is a telegraph pole within 25cm of that road edge. By 242m the road is bordered by high hedges and steep verges. By 277m the blind 'S' bend starts and the road is 4.4m wide. There are no road markings nor warning signs of danger. By 410m the 'S' bend has 1.2m deep ditches to either side. There are no passing places for over 400m. By 535m there is access to private land that has been extensively eroded and damaged by vehicles forcing a passing place. By 535m there is an entrance for East Anglian Farm Ride. This is extensively used by horse riders crossing the road. By 579m the road has been forced wider to allow passing and has extensively and substantially damaged land. There are no pavements and no safe havens for horse riders or pedestrians. By 630m the road is 4m wide and bordered by high banks and blind to all on-coming traffic. By 672m the road is 3.25m and drops down to a blind bend. This is already an accident black spot. By 712m the road is 4m wide with a telegraph pole set in land that has been eroded and damaged and is now 50cm from road edge. By 733m the road rises to an unsighted blind and brow. By 790m the road is 2.9m wide and blind to all on-coming traffic. By 808m there is a destroyed illegible road sign. By 820m Yew Tree Farm entrance is used as a passing place. This is private property and at severe risk of damage and trespass. By 844m the road is 3.4m wide and is bordered by high hedges and banks. By 870m the road is 3m wide. By 881m there is a concealed farm entrance with extensive damage caused by vehicles trying to pass. By 908m the road is blind to on-coming traffic with an unfenced pond 3.5m from road edge. There is a deep drainage culvert under the road with no weight or width warning signage.

By 930m the farm entrance has extensive traffic damage. By 930m there is an East Anglian Horse Ride trail. This is accessed on the blind bend. By 942m the road is eroded on the bank of the bend, and is blind to oncoming traffic. This is already an accident black spot. For the distance from 242m to 998m the road is prone to deep snow drifts and can be impassable. By 998m the road is 3.8m wide and is bordered by high banks and hedges. The road is blind to oncoming traffic. By 1105m the road is 3.8m wide. There are no passing places and a sign facing 'west bound' traffic indicates a sharp bend. It is overgrown and obscured. By 1135m there are a series of concealed entrances with obscured vision and access. By 1222m there is a concealed access to Parsonage Farm House which is on the triangle junction. 1. This is the approach to B1023 from Messing Village. High hedges and no passing places 2. This is facing towards Messing, and illustrates blind narrow bend 3. Damage to verges and unsighted road 4. Illustrating extensive damage and destruction to verges and edges 5. Further evidence of the already massive damage to road edge and verges 6. Extensive damage and destruction to road edge 7. East Anglian Farm Ride access 8. Extensive damage to private access as traffic uses this as a passing place 9. Blind rise to brow of hill. High verges and hedges, no passing places 10. To show narrow road and difficulty of passing. Road verges damaged and unsafe for all road users 11. Blind bend and obscured vision 12. Road damage to high verges and blind bend 13. Further extensive damage caused by existing traffic 14. Blind bend, deep pond, concealed farm access 15. In only one direction, acknowledgement of dangerous bend 16. High sides of banks and verges showing extensive damage to land 17. This is facing back down Kelvedon Road near the junction with New Road and shows the narrow blind bend. 18. Blind junction existing Kelvedon Road with entrances opposite 19. Photo of junction showing entrance opposite Appendix E Survey Notes for Harborough Hall Lane. Research conducted on Friday 10th February 2022 Width of road at T junction -7.30ms. By 25m road narrows to 4.65ms and is edged to roadway by historic solid brick wall. Hedges to the other side. For a further 112ms road is narrow and bordered by walls and concealed driveway access. There are no passing places and the road bends to obscure all view. By 137m road has subsided and deep troughs have been forced into traffic making a passing place on private land. By 180m, road curves to a blind bend and is 4.15ms wide. There are no passing places. By 224m deep ditches on left side prevent passing. Road surface is breaking up and potholes are severe. By 258m there are still no road markings and the road is bordered by ditches. By 295m telegraph pole abuts roadway which is 4.05m wide. By 320m a raised manhole is 25cm from road way with a deep ditch on the other side. There are no passing palaces, and the road is obscured. By 343m there speed restriction signs, and the road narrows to 4.3m. There are no passing palaces at any point from T junction. By 350m a raised manhole cover has already been damaged. It has a concrete surround which is a substantial tyre damage risk. By 372m there is a hidden gully opposite another raised manhole. By 392m the road is 4.45m wide and the

gully protector has collapsed into the roadway, narrowing it to 4.2m. The road is bordered and crossed by low hanging wires. By 416m blind bend starts, deep pond to one side, no passing places. By 474m there are 3 farm entrance gateways, all with obscured access and site lines. They are all damaged from existing traffic using this private land as the only viable passing place. By 500m from T junction there are still no passing places. Such places as have been created by existing traffic have broken down side margins, and created damage and erosion to private land. By 565m the road is 5.4m wide and has a concealed water hydrant that abuts the road way. By 584m the road is bordered by a metal fence which protects an unmarked blind bend from traffic falling 2.2m into a deep pond. By 616m the road has a steep drop directly on road edge and a deep ditch facing it. This runs for 71m, and is unmarked. There are no passing official or adopted places. By 641m the road changes at traffic speed signs and narrows to 4.2m and single track. There are no road markings By 648m the road is bordered by deep surface cut trenches to handle water run off to ditches each side. By 681m the road is 3.85m wide. By 750m the road crosses a culvert. There are no weight limit or warning signs. By 771m private land is being eroded and destroyed by traffic attempting to pass. By 828m there is a passing place. This is the first since the T junction at the centre of the village. This is 70m from a narrow bridge and is unsighted to the other side. By 868m the road is edged by 2m trenches, less than 0.40m from the road edge. By 899m the road is 3.65m wide. The narrow bridge is badly damaged, has no weight or warning signage, and has 2m drops each side. By 973m the road is 3.35m wide, unsighted from either passing place and unsigned. By 1020m the passing place is badly damaged and full of holes. The positioning means that neither place is in sight of the other. By 1069m the road crosses the major gas pipe. There are no weight or warning signs. By 1153m there are a series of concealed entrance and exits from private homes. These driveways are already badly damaged as traffic destroys verges and private land. By 1240m the request bus stop obscures the view of traffic in both directions. 20. Looking up Harborough Hall Lane showing the brick wall outside the Bell House 21. Looking back towards The Street 22. Looking back towards The Street 23. Extensive edge of road deterioration and damage 24. Blind bend 25. Looking back at Blind bend 26. Drainage ditch 27. Low hanging wires, blind bend, no signage 28. Blind bend near Harborough Hall Farm 29. Hidden warning sign 30/31. Deep pond on bend 32. Extensive damage already caused by traffic forcing passing places 33. Damage already existing to narrow bridge 34. To show extensive verge and road edge damage Appendix F Survey Notes for Kelvedon Road from Junction with School Road to Junction with New Road outside Parsonage Farm. Research on conducted on Friday 10th February 2022 This survey and research is from the turn of School Road at 256m, where Kelvedon Road continues straight ahead. By 277m there is a direct access to a cemetery. This is 2m from the road edge. There are no road markings or signage. Funeral corteges block the roads in both directions: By

296m the road is 4.70m wide with a manhole in the verge to the edge of the road. By 298m the road widens for farm access and a Public Footpath. Both are directly onto the road with no signage or warning signs. By 363m the road is badly damaged and eroded as traffic has forced back the verges and destroyed the embankments. By 397m the road narrows to 3.00m with no passing places and high embankments on each side. By 459m there is an adopted passing place. This is the first since the T junction at The Crown. By 464m the road is bordered by 2.5m deep ditches and high verges. By 610m the road is 3.35m wide with substantial damage to farm land and destruction to verges. By 822m the road is 3.5m wide and for this whole length of road there is extensive damage to verges and edges, with ground broken down to enable passing. By 822m the culvert is unsigned with no weight or warning signage. Less than 0.40cm from road edge is ditching which is 2m deep. By 879m the road narrows to 3m as it approaches the blind triangle junction with New Road and Kelvedon Road. 35. To show deep hidden ditches within 50cm of road edge 36. To show extensive damage to land as traffic forces a passing place 37. Blind bend, no safe haven or refuge. To show danger to all non-vehicle road users – especially horse riders and pedestrians 38. Obscured view of junction 39. Junction of Kelvedon Road and New Road. No signs in New Road. Road is bordered by deep ditches 40. Additional photo of junction Appendix G Survey Notes for Lodge Road. Research conducted on Tuesday, 1st February 2022 Width of road at T junction – 7m. Distance to White House is 4.3m, where there is a telegraph pole 25cm from edge of road way. The road is 43cms from houses. By 53m there is a hidden Public Footpath with access directly onto road: For 112m the road is 3.3m wide and is bordered by houses, gardens and driveways. There are no passing places. Distance from T junction now total 128m and the road width has been no more than 3.3m. By 175m there is extensive land destruction and forced 'widening' by traffic. By 196m there is a blind bend. The road 3.6m wide and unsighted in both directions. From 196m to 250m the road is 3.3m wide, bordered by hedges and walls, no passing places By 300m the road narrows to 3.1m wide. There are no passing places and the roadway is bordered by deep ditches within 25cm. There are several concealed entrances and dangerous blind spots. By 300m in total from T junction, the road is now 3.2m wide. By 322m the road is 3.5m wide, no passing places and no signage. By 357m there is a concealed entrance/exit for the village pumping station, which requires 24 hour access and is used by traffic as the only possible passing place. By 379m, there are 2m deep ditches within 25cm on either side of the road edge. For this whole stretch the damage, land erosion and destruction are already severe. By 400m from T junction, the road is without any passing places, there is no signage and no danger or warning information. By 541m, there is a narrow bridge over a culvert, which has no weight or danger signage and is already showing signs of severe damage. By 654m there is a blind bend, with no visibility and no sight lines for traffic in either direction or there are deep 1.5m ditches on either side. By 700m the road passes 'Messing

Lodge' and narrows to 2.8m wide. The road crosses farm land for 800m at this width and with high hedges and walls on the road edge for this entire distance This road leads to East Thorpe. There are no passing places. 792m at Footpath sign, road narrows to 2.8m wide. Total fully surveyed road 800m, with a further 800m visually surveyed. There is only one unmarked 'passing' place, on the entire distance surveyed. 43. Looking back towards the "white house" 44. Looking back – showing properties directly on the road 45.Showing the road width from 120m onwards 46. To show hidden deep drainage ditch, and road edge erosion 47. To show deep ditches within 20cm of road edge. No signs, no warning 48. To show extensive damage to verges and edges caused as traffic forces a passing place 49. To show massive damage caused by existing traffic. No safe havens no pavement and no refuge Appendix H Survey Notes for New Road from Junction with Kelvedon Road outside Parsonage Farm to junction with School Road outside Messing Primary School. Research conducted on Friday, 10th February 2022 By 10m towards the village School Road is 4.10m wide. By 55m the road is now 3.5m wide, with no signage for narrow roads, or signage that would indicate not suitable for multi axle or HGV vehicles: By 68m the road bends and narrows to 3.00m with high trees and hedges on each side completely obscuring road. By 124m the bend ends and the road is 3.4m wide. There is extensive destruction and damage to the verges on either side, with no passing places. By 188m the road is 2.90m wide, the degradation to verges and edges is extreme, and the road has subsided into the potholes. At 280m from the 'triangle' junction the road is 3.65m wide. There are no passing places, no signage and several house access drives that are broken and eroded by traffic. At 287m the bend ends with the road 3.80m wide. This road is now approaching the village school, which is partially unsighted. By 375m the road warns of a school, there are no speed restrictions and no signage. By 479m the road speed indicator advises reduction to 30mph. This is within 74m of actual school entrance, which is directly from this road, with no protection between the road and children. By 520m the road markings indicate two way traffic, and is 3.85m wide, there are no passing places. By 550m the school entrance opens directly onto the road, there are no safety barriers or protections. By 560m there are zig zag yellow lines – these are after the school entrance. By 583m the road arrives at the triangle junction signposted for the village and Tiptree. For the entire stretch surveyed, the road has no passing places, no signage and no warnings of safety issues for the school and children. 50. To show extensive damage to land and road edge. No safe haven, no passing places and no refuge point for non-vehicle road users 51. Showing extensive road deterioration and damage, no signage warning of school and no safe haven for pedestrians and children 52. Showing erosion and damage to road as traffic forces a passing place 53. Vision obscured approach road to school. No signage and no haven or refuge for children or other non-vehicle road users Appendix I Survey Notes for School Triangle to 'Maypole' Junction with B1022. Observations on 14th February 2022 There is extensive tree root damage to large sections of the

road making the surface unsafe and unstable in the approaches to the school. The road has multiple access points for horse riders and walkers, and has no warning signage. The road is subject to constant and severe flooding, forcing traffic into the middle of the road, and into on-coming traffic. The junction from New Road onto B1022 is blind and obscured. Within 10m of junction the road is less than 3.5m wide. Traffic turning onto B1022 is unsighted to left. This is already an accident black spot. 54. To illustrate extensive damage already made as traffic is forced to make passing places 55. Blind junction from B1022 with narrow unsighted lane 56. Extensive damage already done to low hanging trees – no warning signage 57. Towards B1023 junction showing narrow 2.8m width 58. Accident black spot for obscured right turn 59. Blind bend, no signage, no passing places except by destroying private land Appendix J Survey Notes for The Street to Kelvedon Lane (Burial Ground) Research conducted on Friday, 10th February 2022: At the white line on the T junction, the road is 16m wide. The view to both sides, Lodge Road and Harborough Hall Lane is obscured. The road width reduces to 11m immediately. By 58m the ancient wall retaining the church burial ground starts and the road reduces in width to 5.6m. There is a narrow pavement here for pedestrians for part of the length, but does not continue around the corner. The wall curves to the church gates and is a blind 'S' bend, passing the village hall and children's playground. This is unsighted in both directions. By 125m the village war memorial abuts the road which is 5.25m wide and in the middle of the 'S' bend, unsighted in both directions. By 238m a raised and obscured Fire Hydrant has no warning signage. By 250m there is the junction with School Road. This is a blind T junction for any traffic emerging to turn left to continue on Kelvedon Road, or right into the village. 60. To show angles and difficulty of T junction for all traffic 61. To show difficulty of unsighted T junction and rapidly narrowing road bordered by houses 62. To show proximity of ancient wall, blind bend and over-hanging tree. This is corner for War memorial, children's playground and village hall 63. Blind corner outside the Village Hall 64 Looking back at the blind corner outside the Village Hall 65. To show proximity of war memorial and village hall entrance and entrance for children's playground 66. Raised manhole, within 25cm of road edge, already substantially damaged by existing traffic 67. Road narrows as it leaves village, no signage, no markings then single track road. No passing places, no safe haven for non-vehicle road users 68. Traffic congestion caused in The Street by a single lorry and tractor. Appendix K Observations on the current state of School Road School Road is for the most part of sufficient width to cope with local traffic. The road has residential properties on both sides for the majority of its length. The only section with a footpath is on the bend by Messing Green where the road turns sharply right and the remainder of the road has no footpaths. This road is used by children attending Messing School. The majority of the road is of adequate width for two vehicles to pass. A detailed survey was not considered necessary for this road. The junction with Kelvedon Road is blind and extreme care is needed at this

point. 69. Blind Junction with Kelvedon Road 70. Blind Junction with Kelvedon Road 71. View from Kelvedon Road showing blind junction 72. School Road showing the short section of footpath around the bend in the road.

Applicant's Response

The Applicant notes the document provided by the Interested Party in February 2022. The Applicant responded to this document on 16th March 2022. The response is included in Appendix A of this document.

The Applicant notes the Interested Party's concerns regarding the predicted traffic changes in the villages of Inworth and Messing. As outlined in the response provided in March 2022, the Applicant has considered this impact in the development of the design for Inworth Road and the assessment of the Main Alternative as proposed by the Interested Party. The microsimulation modelling of Inworth Road has confirmed that the improvements as part of the proposed scheme would address both the historic capacity issues as well as those caused by the projected increase in traffic. The Applicant maintains the position that there is not sufficient compelling justification for a bypass of Inworth to be included in the proposed scheme.

Regarding the operational safety of the villages, the numbers of additional vehicles in Messing is not considered to change the material safety of roads in and around the village. The proposed measures on the B1023 e are targeted to minimise risk to pedestrians on the footway, but in a way that is not likely to increase vehicle speed in the village. On this basis, no additional measures are considered to be necessary on B1023.

REP2-083-003

Sub-Question

Appendix B; MIAG – Combined paper and electronic petition and Full lists of email supporters; This document contains details of all supporters of the petition and supporters groups. This includes personal addresses, email addresses and telephone numbers.

MIAG are mindful of both Data Protection requirements and the ExA own cautions in this regard. As such, MIAG feel this document should be reserved for ExA or NH review if requested.
Applicant's Response
The Applicant has seen the documents provided.
REP2-083-004
Sub-Question
Appendix C; MIAG – Report on Main Alternative Report on the Design of the Main Alternative for Junction 24. 1.0 Overview This report is to discuss the technical aspects of the Main Alternative for Junction 24 as proposed by Messing-cum-Inworth Parish Council. The Main Alternative has been produced to replace the National Highways (formerly Highways England) (NH) proposal for the construction of a new junction 24 connected to the B1023. It is our belief that the original NH proposal will create increased and unsustainable traffic flows through the narrow lanes leading to Messing and through Inworth village itself. The Main Alternative Proposal seeks to reduce the impact of these changes by moving the connections to the B1023 to outside the limits of Inworth village. This report demonstrates that the provision of the alternative proposal is technically feasible and would achieve the required objectives. This report is supplementary to the report produced by MAG on the impact of the Junction 24 proposals, and should be consulted for further information. 2.0 National Highways Proposal for Junction 24 The Proposal, from National Highways, (NH) was to 'Construct a New Junction 24 on the A12, south of Inworth Road. (To) Provide slip roads terminating where the Messing Road meets Inworth Road so that all traffic joining or leaving the A12 would use the Inworth Road'. Refer to the map in Appendix A. The technical design of this proposal is the subject of a separate report by MIAG. 3.0 The Main Alternative Proposal Messing-Cum- Inworth Parish Council have put forward a proposal for an alternative to Junction 24 that joins the B1023 south of Inworth village, and also north of the A12. (Refer to the map in Appendix C). This proposal would divert all traffic away from Inworth and Messing villages, greatly reducing the problems of increased traffic through the villages and rural lanes. The route would for the most part follow the line of the former railway and pass to the west of Inworth

village before re-joining the B1023 south of Inworth. This alternative route would have the effect of diverting traffic away from Inworth itself where road widening, surfacing and drainage works would be required under the NH proposal to bring the road up to standard. The roads through Inworth and Messing would therefore only serve local traffic and would be signposted as such. The Main Alternative Proposal has been the subject of a detailed design review by the Messing and Inworth Action Group (MIAG), and this review is the subject of this report. The proposal is a concept design only to demonstrate that the route is a viable proposal and will need a full design if adopted by NH. The Main Alternative has the backing of Priti Patel MP, Essex County Council, Colchester District Council and the local Parish Councils. It is understood that NH have not considered this proposal in any detail at this point in time. 4.0 Assessment of Messing Action Group Main Alternative Proposal 4.1 Overview The Main Alternative route would start to the south of Inworth and run west before following the route of the former Tiptree to Kelvedon railway line until it connected with the proposed south roundabout of A12 Junction 24. The route would continue across the proposed Junction 24 to the north roundabout. A further link road from A12 Junction 24 north roundabout connecting to the B1023 would then be necessary. This route could allow for a road alignment which would be compliant with National Highways design standards. 4.2 Detailed Assessment From a new roundabout junction on the B1023 to the north of Perrywood Garden Centre car park a new link road alignment would run to the west before intersecting with Windmill Hill close to where the entrance to Bunting's Nest and Inworth Hall Farm is currently positioned. At the start of the new link, it would run through an area identified for flood plain compensation works, these works might need to be re-positioned. By using a design speed of 85kph for the whole alignment (since the existing B1023 is currently subject to a 50mph speed limit in this area) a design compliant with DMRB standards could be achieved. The horizontal alignment would be a simple straight of 200m length with a 1% gradient. Where the proposed alignment would intersect with Windmill Hill, there is an access track which follows the route of a dismantled railway line and provides access to Bunting's Nest and Inworth Hall Farm. The Main Alternative link road could run alongside this track, the access track would need some realignment. A roundabout at the intersection of the alternative link and Windmill Hill would be useful to change the direction of the alternative link alignment without using sharp horizontal curves. It could also provide for a revised entry to the access track off the roundabout. A short connection to Windmill Hill on the west side of the roundabout would also have to be provided. Windmill Hill to the east of the roundabout could be stopped up. From the new Windmill Hill roundabout, the alternative link would follow approximately the route of the former railway line until crossing a private road from Inworth Hall. Another junction would be needed at the intersection of the private road from Inworth Hall and the alternative link. A roundabout would provide the best option here since the flows of vehicles along the private road would be

considerably less than on the alternative link road. A roundabout would give the best opportunity for vehicles, which would include farm vehicles, from the private road to access gaps in traffic to cross the alternative link road. The horizontal alignment of the alternative link between Windmill Hill roundabout and the roundabout at the intersection with the private road from Inworth Hall would be straight. The length of this section would be about 725m long and would allow sufficient length for an overtaking section. The existing ground profile is on the crest of a hill but is reasonably flat and would allow for a Crest curve with K value of 285 or greater to be used which would allow full overtaking sight distance. From the roundabout at the intersection with Inworth Hall private road the alternative link would follow approximately an existing field boundary and tree line before connecting to the south roundabout of A12 Junction 24. This section would be approximately 350m in length, which would not be long enough to provide an overtaking section. It would also go into cutting so that it could tie in vertically with the NH proposed A12 Junction 24 south roundabout. The alignment would need to use horizontal radii of less than 360m to make it clear it was not an overtaking section. It is usual to reduce the vertical alignment crest curve K values by 1 step for a non-overtaking section but in this case the vertical curve would fall within the "immediate approach" to the junction at either end of this section of the link. In that case the desirable minimum crest K would be needed in order to maintain forward visibility on approaching the junctions. From the north roundabout of the proposed A12 Junction 24 a new link would be required to connect to the B1023 on the north side of the A12. This should be a relatively simple alignment across open fields. In order to discourage overtaking on this relatively short segment it is proposed to adjust the horizontal alignment by providing a straight, transition (L = $\sqrt{24R}$), circular curve R = 360m (a 1 step relaxation), transition (L = $\sqrt{24R}$), straight. Because the R = 360m curve with a 1 step relaxation would not be within the "immediate approach" to the junctions at either end of the alignment a reduction in stopping sight distance of 1 step would also be allowed. The link would have to cross Domsey Brook and therefore need a new structure to carry the link over the brook. A pre-cast box type structure would probably be sufficient for this purpose. To connect to the B1023 at the northern end of this link another roundabout would be required. As the B1023 has a longitudinal gradient of approximately 7% north of where the A12 crosses this would not be a good position for a roundabout. The gradient is flatter where there is an entrance into Threshelfords Rural Business Park. This would be a suitable place to site a new roundabout, which could include an arm providing access into the business park. 5.0 Conclusions 5.1 Design The Main Alternative Proposal has been assessed and can provide a route that is fully compliant with the required design standards and achieves the objectives of removing through traffic from Inworth and Messing villages. The proposal avoids the problems of the pinch-points of Hinds Bridge and various locations within Inworth itself and avoids impacting local businesses. 5.2 Costs The cost of the Main Alternative has not been fully evaluated at the time of this

report. This proposal would have a longer alignment than the NH proposed link from B1023 to A12 Junction 24 south roundabout. The NH proposed link would be about 500m long, but the alternative would be about 1435m on the south side of the A12 Junction 24 and a further 685m for the link on the north side. It would also require three more roundabout junctions than the NH proposal. That would increase the cost of a link from B1023 to Junction 24. Additional land would need to be purchased and there could be objections from any land owners affected. The alternative proposal would remove the requirement for road widening works on the B1023 through Inworth. There is also a large area identified in Inworth village for an attenuation pond and flood plain compensation, which might have to remain in place in order for the proposed drainage design to work. 6.0 List of Appendices 6.1 Map of Area showing National Highways proposal for Junction 24 6.2 Map of Inworth showing National Highways for road improvements 6.3 Map of Area showing the alternative proposal 6.1 Appendix A Map of Area showing National Highways Proposed Junction 24

6.2 Appendix

Applicant's Response

The Applicant notes the document provided by the Interested Party which were received on 6th July 2022. In response to this, the Applicant undertook an assessment of the Junction 24 arrangement and considered various alternatives for the junction design and connection to Inworth Road, including the Main Alternative proposed by the Interested Party. This is documented in the Junction 24, Inworth Road and Community Bypass Technical Report in Appendix 3.3 of the Environmental Statement [APP-095]. The Applicant relies on that report to demonstrate that there is not a sufficiently compelling case for the Main Alternative to be included in the proposed scheme as interventions on the existing road network sufficiently address the predicted increased traffic on the B1023.

REP2-083-005

Sub-Question

Appendix D; MIAG - Report on existing access roads in to Messing Report on the Feasibility of Road Improvements to Kelvedon Road and Harborough Hall Lane in Messing to current DMRB standards. 1.0 Overview The public consultation documents that National Highways published in 2021 proposed siting Inworth Road roundabout close to the existing junction of B1023 Inworth Road and Kelvedon Road. With the roundabout in this position access from the proposed A12 Junction 24 to Kelvedon Road would be relatively easy. This would make it more attractive for traffic wishing to reach the B1022 to rat-run through Messing village than if the roundabout was sited further away from the Inworth Road/ Kelvedon Road junction. By taking this route traffic wishing to reach the B1022 Colchester Road would then be able to avoid passing through Tiptree. Traffic predictions indicate traffic flows along Kelvedon Road, through Messing village and then along Harborough Hall Road to connect to B1022 Colchester Road could increase by as much as 3.5 times current volumes. Assuming Inworth roundabout would stay in the position proposed by National Highways this report will investigate the effect of improving both Kelvedon Road and Harborough Hall Road to cope with the predicted increases in traffic volumes. Since Inworth roundabout as proposed at the time of the public consultation has many design faults and does not comply with National Highways design standards this investigation is purely a theoretical exercise. The design and positioning of Inworth roundabout is the subject of another report. 2.0 Conclusions Providing a DMRB compliant highway design for the roads leading to Messing village would have a high construction cost and is unlikely to provide any substantial benefits. There would be a high environmental impact due to the land take required for the improved alignment from prime agricultural land and the loss of mature hedgerows and trees on existing property boundaries. The cost of diverting statutory undertaker's services would also be significant. By improving the road network leading to Messing village it would attract more traffic onto that network, particularly as a through route between the B1022 and B1023. Since it would be very difficult to improve roads within Messing village from increased traffic volumes, gridlock will occur in the village centre. In addition, as road surfaces in the village centre are also substandard they will not be able to withstand the increase in traffic volume including higher truck usage. As a result, regular road closures for maintenance and repair can be expected along with a high risk of damage to properties / property boundaries, particularly those properties not benefitting from a footpath separating their property or boundary from the road. 3.0 Design Philosophy To begin the design assessment for the improvements to the existing Kelvedon Road, through Messing village, continuing along Harborough Hall Road, the design speed for these roads was assessed. Once the existing design speed was determined an improvement of these roads to DMRB (Design Manual for Roads and Bridges) standards was investigated. Since the proposed design would be to a higher standard,

the design speed would then need to be re-assessed. The design would be checked using the revised design speed to ensure it was still compliant. The calculations in Appendix 1 below demonstrate this process. The design speed for the existing alignment was found to be 60kph, category A. To determine this value required some interpolation since values of its current average carriageway width and verge width were below those values given in CD 109 (Highway Link Design). Following the design of improvements to provide a 7.3m carriageway with 2.5m verges and improvements to horizontal curve radii, the design speed was re-calculated. Normally a rural 7.3m carriageway would have 1.0m hardstrips each side but this was thought to be an excessively high standard in this case. Kerb lines would need to be provided to protect the edge of carriageway and as part of a highway drainage system, using gulleys. Improvements to the alignment gave a design speed on the border between 70kph category A and 85kph category B. 70kph category A was used to re-assess the design since this would have a shorter desirable minimum stopping sight distance than for 85kph and smaller horizontal radii could be used with shorter transition curves. Less verge widening for visibility would be necessary. In some areas it would not be possible to provide a compliant design to even 70kph and these areas would require some departures from standards and mitigation works, so 85kph was not considered appropriate as a design speed. In designing these improvements an attempt was made to follow as closely as possible the existing alignment of Kelvedon Road and Harborough Hall Road. This proved to be quite difficult, with geometric requirements of CD 109 forcing the compliant design away from the existing alignment. Certain combinations of radius, transition length and angle turned through could not be accommodated. For example, a 90m radius (the lowest value permitted) would require a transition length of 272m either side of that radius. It is possible in some circumstances to use half-length transitions (ie. 136m long) but these too could not always be accommodated. Sometimes the transition length would be too long to allow the circular arc to be position as required. In some areas using a 90m radius would still be the preferred but to accommodate that radius would require departures from standard. 4.0 Assessment of Specific Locations A reference point ("Chainage 0") has been taken from the B1023 Inworth Road/ Kelvedon Road junction. Distances are in metres. Key for screen shots : 4.01 Chainage 0 to Chainage 60 The improved alignment would follow the existing but an increase in road and verge widths would require removal of mature hedgerows on both sides of the road and some mature trees. At Chainage 60 the proposed verge would be only 1.33m from an existing building in the property on the south side. Overhead cables and poles are present on both sides of the road, these would need to be moved to the back of the proposed verge. It is not known what other services, if any, are present. There appears to be no drainage gulleys or inspection chambers present. 4.02 Chainage 60 to Chainage 150 Verge widening for visibility on the south side puts the back of verge approximately 5.0m into the property on the south side. Reducing the stopping

sight distance would be a departure from standards since this would be within the immediate approach to the junction at Inworth Road. The verge widening above the normal 2.5m width would not be significant in any case. Due to an existing small radius curve at Ch.280 the alignment improvement starts to deviate from the existing alignment. The increase in road width would require removal of mature hedgerows on both sides of the road and some mature trees. Overhead cables and poles are present on both sides of the road and would need to be moved. No drainage gulleys or inspection chambers are visible. 4.03 Chainage 150 to Chainage 350 Requirements for a compliant alignment design result in the road improvement being pushed away from the existing alignment. The back of the proposed verge would be up to 26m offset from the original road edge into a field on the north side. Verge widening would be needed to provide the desirable minimum stopping sight distance on the immediate approach to property and field accesses. An existing culvert at Chainage 195 carries a ditch or water course under the existing road. This would need to be replaced by a longer culvert to allow for the increase in width of the proposed road improvement. Some mature hedgerow and trees would need to be removed. Overhead cables and poles would need to be moved. Some of the cables cross the existing road before Chainage 170 then travel perpendicular to the road from that point. 4.04 Chainage 350 to Chainage 440 Following the small radius left hand curve (at Chainage 280), the alignment would return to its existing position for a short length. The increase in width would require some vegetation to be removed and existing ditches to be filled and replaced by new ditches at the back of verge. Overhead cables and poles would need to be moved. 4.05 Chainage 440 to Chainage 680 The use of a 180m radius left hand curve (at Chainage 280) followed by a 180m right hand curve (at Chainage 490) forces the improved alignment "offline" by up to about 16.5m from the existing road edge. Some mature hedgerow would need to be removed and overhead cables and poles moved. 4.06 Chainage 680 to Chainage 880 This section would be a straight alignment and would follow the line of the existing road for most of the length of the section. A proposed verge width of 2.5m would come close to one of the farm buildings but this should not cause any particular problem. Existing mature hedgerow would need to be removed from both sides of the road as well as a mature tree. Overhead cables and poles would need to be moved. The existing vertical alignment through this section appears to have a vertical crest curve with a low K value, which reduces forward visibility. This section of the road would need to have the vertical alignment improved to provide desirable minimum stopping sight distance since there are a number of accesses in the vicinity. 4.07 Chainage 880 to Chainage 1000 This section of the alignment presents a problem in that the existing radius here is only about 40m. The lowest value for a CD 109 compliant horizontal radius is 90m but as stated previously this radius would require very long transition lengths for a 70kph design speed. The design speed calculated for this road improvement (see Appendix 1) was 70kph, category A. For a category

A design, a relaxation in horizontal radius of up to 3 steps is permitted. A 90m radius is a 4-step relaxation and is therefore a departure from standards. It would also require a considerable amount of verge widening to accommodate a stopping sight distance of 120m appropriate for a 70kph design speed. This would push the back of verge on the inside of the curve approximately 25m into the property on the south side, measured from the existing road edge. A reduction in stopping sight distance would also be a departure since there are accesses in this area. A compromise in the design standards would therefore be necessary to provide a solution that would reduce the impact on properties but still provide a reasonable standard of design. Departures from standards would need to be applied for and could be mitigated by applying a lower speed limit over the length of alignment where the departures occur. One possible solution would be to provide a 90m horizontal radius curve with transition curves of 49.6m length (ie. half-length) and a stopping sight distance of 70m. This would comply with a design speed of 50kph and with an advisory speed limit of 20mph applied would be a reasonable compromise. However, it would still encroach into the property on the south side by up to 14.5m from the existing road edge. There would still be a considerable impact on mature trees and hedgerows. Overhead cables and poles would also need to be moved. 4.08 Chainage 1000 to Chainage 1160 This section would be straight since CD 109 geometry requirements would not permit the existing reverse curve alignments to be replicated. The improved alignment would be pushed into the fields to the north east of the alignment. There should not need to be any intrusion into properties on the south west side. Some existing hedgerow would need to be removed and an existing ditch filled and relocated to the revised back of verge. Overhead cables and poles would also need to be moved. 4.09 Chainage 1160 to Chainage 1300 The existing horizontal radius of this section is as low as approximately 35m. To replace it with a 90m radius (the minimum permitted by CD 109) would push the alignment into fields to the north of the existing road. A 90m radius is a departure from standards for a 70kph category A design speed but to use a larger radius would intrude even further into the field. Transition curve lengths preceding and following the 90m radius would have to be quite short for this alignment to work, which could also be a further departure from standards. There is a junction with New Road on the outside of this curve. As with the section of re-alignment between Chainage 880 and Chainage 1000 a compromise in design standards would be needed. A possible solution is to provide a 90m radius with transition lengths of approximately 50m (ie. half-length for 50kph). This would be to a compliant standard for a 50kph design speed but would require an advisory speed limit of 20mph to be applied. The desirable minimum stopping sight distance for 50kph is 70m and by designing verge widening to provide this the width of the verge could be reduced (when compared with a 70kph design). If a 20mph speed limit was applied, providing any longer stopping sight distance than 70m would encourage higher vehicle speeds, so 70m would be appropriate. As the junction with

New Road is on the outside of the curve visibility for vehicles approaching the junction and exiting the junction would be good (ie. greater than 70m). Road improvement works along section would require the removal of some trees and ditch reconstruction. Overhead cables and poles would need some changes where they cross over Kelvedon Road but they then continue along New Road away from the improved alignment. 4.10 Chainage 1300 to Chainage 1750 A relatively simple section following approximately the route of the existing Kelvedon Road but with a width increase. The increase in width would require the removal of several small trees. There are overhead cables crossing at approximately Chainage 1650 but it might be possible to leave these in their current position, with one of the poles in the proposed verge. 4.11 Chainage 1750 to Chainage 2110 This section of Kelvedon Road and The Street pass through to the centre of Messing village. To provide an improved road alignment to DMRB standards would have a substantial impact on properties within Messing village. There would simply be insufficient space to allow for a compliant horizontal alignment, even to the lowest standards of CD 109. A carriageway width of 7.3m would also be impossible to accommodate without extensive intrusion into property boundaries. The proposal in this concept design would therefore be to leave the road alignment through Messing village untouched. From Chainage 1750 to Chainage 1820, on the approach to Messing, the proposed road width would be tapered from 7.3m to the existing width, which would then continue through the village. Currently there is a 30mph speed limit through the village but it might be appropriate to lower this to 20mph since the existing road geometry is of a quite low standard. 4.12 Chainage 2110 to Chainage 2400 This section of the alignment passes along Harborough Hall Road starting from the centre of Messing village. As with the section from Chainage 1750 to Chainage 2110, an increase in carriageway and verge widths would have a substantial impact on properties over the first 100 metres or so of this section. The proposal in this concept design would therefore be to leave this section of the road alignment untouched. After the first 100m (circa Chainage 2200) of Harborough Hall Road there are no properties on the north side of the road. There is an existing curve in the road with a radius of approximately 20m at Chainage 2300. From Chainage 2200 to Chainage 2400 it would be possible to widen from existing width to 7.3m and upgrade the horizontal alignment to replace the existing 20m radius curve with a 90m radius. The 90m radius would be required to have short transition lengths but if the 20mph advisory speed limit proposed through Messing village could be extended past this curve the alignment would comply with a 50kph design speed. With verge widening to allow a 70m stopping sight distance the alignment would be much improved over the existing alignment. It would intrude into fields on the north side but would move the road away from properties on the south side. Some trees and hedgerows would need to be removed. Overhead cables and poles would also need to be moved. 4.13 Chainage 2400 to Chainage 2650 As with the centre of Messing village this section of alignment would be difficult to improve

because any realignment or widening would have a severe impact on adjacent properties. The current road widths are between 4.0m to 4.5m wide through this section. It might be possible to widen to 5.5m or 6.0m without too much impact on properties but there would be little space for verges. Up to Chainage 2500 visibility looks to be quite reasonable, providing at least 70m stopping sight distance. At approximately Chainage 2550 there is an existing curve with a radius of about 28m. To increase this radius by even a small amount would have a substantial impact on the property to the south. Visibility through the 28m radius is also quite limited, with a stopping sight distance of only about 18m. To provide even an urban standard of 33m stopping sight distance would require a verge width of about 3.5m on the inside of the curve. This would mean removing a considerable length of post and rail fencing from the property to the south. If this section of road functions satisfactorily in its current state it might be prudent to leave it as it is. If there are currently any issues with accidents the hierarchy of improvements would be 1. Verge widening to increase stopping sight distance. 2. Increase the horizontal radius and verge width for even greater visibility. Both these measures would take a considerably amount of land from the property to the south. There is currently a 30mph speed limit applied but the advisory limit of 20mph suggested through Messing village could be applied beyond the 28m radius curve. 4.14 Chainage 2650 to Chainage 2750 This section would allow for a 90m radius with short transitions to be used. With a stopping sight distance of 70m this would still only be suitable for a 50kph design speed, so the 20mph advisory speed would need to be continued to this point. There is an existing ditch on the inside of this curve which would need to be replaced with a new ditch at the back of verge. 4.15 Chainage 2750 to Chainage 3340 The final section of the improved alignment would follow the existing Harborough Hall Road alignment as closely as possible but geometric constraints prevent the existing reverse curves being replicated. Some hedgerows and trees would need to be removed and moving some overhead cables and poles would be necessary. Some sections of existing ditch would need to be filled and replaced. Improvements to Harborough Hall Road would not need to intrude into properties to the east of the alignment on the approach to the B1022 in a final design. 5.0 Summary Kelvedon Road and Harborough Hall Road are likely to have originally been farm tracks and probably do not have a construction depth or strength that would meet current standards. This would need to be determined by taking core samples and deflectograph readings. It might be that overlaying the original road pavement would give it an acceptable strength. However, due to the increased width of the improved alignment and those lengths of carriageway that are offline a considerable amount of new full depth construction would be needed. Within Messing village no road improvements have been proposed since providing compliant geometry and widths would cause substantial impact on existing properties there. Currently there appears to be no existing highway drainage system but some field ditches may also serve to drain surface water from the road. A highway

drainage network would need to be added to an upgraded road since the impervious area of the widened carriageway would be increased over the existing and it follows that surface water run-off would also increase. Attenuation ponds would most likely be needed to prevent large amounts of surface water run-off directly entering existing water courses. The only visible signs of existing statutory undertaker's services are overhead electricity and possibly telephone cables. These follow quite closely to the existing road edge for quite long lengths and would need to be moved in many areas. There is a great deal of mature vegetation along the length of these roads. Widening and re-aligning the roads would require a substantial amount of this vegetation to be removed. Whilst it would be replaced it would be many years before it could provide the degree of screening that the current vegetation gives to properties along the route. The Vertical alignment has not been considered in any detail since existing ground level information available is limited to 10metre contours. An accurate vertical alignment could not be designed but from the limited information available the ground looks to be mostly quite flat and should not present any problems in regards to gradients and vertical curve values. 6.0 Conclusions Providing a DMRB compliant highway design for the roads leading to Messing village would have a high construction cost and possibly not provide any substantial benefits. There would be a high environmental impact due to land take required for the improved alignment from prime agricultural land and the loss of mature vegetation on existing property boundaries. The cost of diverting statutory undertaker's services would also be significant. By improving the road network leading to Messing village it would attract more traffic onto that network, particularly as a through route between the B1022 and B1023. Since it would be very difficult to improve roads within Messing village from increased traffic volumes, gridlock will occur in the centre. In addition, as road surfaces in the village are also substandard they will not be able to withstand the increase in traffic volume including higher truck usage. As a result, regular road closures for maintenance and repair can be expected along with a high risk of damage to properties / property boundaries, particularly those properties not benefitting from a footpath separating their property or boundary from the road. APPENDIX 1 Assessment of alignment geometry of existing Kelvedon Road and Harborough Hall Road Kelvedon Road from junction with B1023 Inworth Road to Messing village. To determine existing design speed: From CD 109 Assume average verge width, VW = 0.5m Bendiness, B (° per km): B1023 Inworth Road through Messing village to B1022 Colchester Road (angles turned through) 10 (B1023) 4 59 8 20 4 14 40 8 62 (Messing village) 9 (B1022) 5 22 94 33 5 31 28 13 20 20 50 79 7 6 7 3 25 29 8 18 58 9 5 49 17 9 21 4 46 25 Bendiness, B = 984°/3.34km Bendiness, B = 294.611°/ km From equation CD 109 2.8.2: Log10VISI = 2.46 + VW/25 – B/400 Log10VISI = 2.46 + 0.5/25 – 294.611/400 Log10VISI = 1.871 VISI = 55.335 Alignment constraint, Ac: From CD 109 Ac = 12 – VISI/60 + 2B/45 Ac = 12 – 55.335/60 + (2x294.611)/45 Ac = 12 – 0.92225 + 13.0938 Ac = 24.17155 Layout Constraint, Lc : From CD 109 Estimated

Lc for average road width = 4.2m, average verge width = 0.5m, high number of accesses. Lc = 37 Determine design speed: Existing design speed interpolated from Table 2.1 = 60A Re-assess design speed for improved road alignments Kelvedon Road from junction with B1023 Inworth Road to Messing village. To determine design speed after improvements: From CD 109 Average verge width, VW = 2.5m Bendiness, B (° per km): B1023 Inworth Road to Messing village to B1022 Colchester Road (angles turned through) 11 (B1023) 62 12 13 51 (Messing village) 18 94 13 31 52 54 65 74 12 41 10 11 13 38 (B1023) 9 5 54 Bendiness, B = 743°/3.327km Bendiness, B = 223.276°/ km From equation 2.8.2: Log10VISI = 2.46 + VW/25 – B/400 Log10VISI = 2.46 + 2.5/25 – 223.276/400 Log10VISI = 1.9218 VISI = 83.521 Alignment constraint, Ac : From CD 109 Ac = 12 – VISI/60 + 2B/45 Ac = 12 – 83.521/60 + (2x223.276)/45 Ac = 12 – 1.392 + 9.923 Ac = 20.531 Layout Constraint, Lc : From CD 109 (Average road proposed width estimated at 7.0m taking into account some sections narrower than 7.3m). Estimated Lc for average road width = 7.0m, average verge width = 2.5m, high number of accesses. Lc = 28 Determine design speed: Design speed interpolated from Table 2.1 = 70A/ 85B borderline
Applicant's Response
The applicant acknowledges the Report on the Feasibility of Road Improvements to Kelvedon Road and Harborough Hall Lane in Messing to current DMRB Standards. The applicant is aware of the existing rural nature of these roads. The proposed modelled flows can be accommodated. Comparable roads throughout UK carry heavier flows without adverse safety effects. The applicant agrees that providing a DMRB compliant highway design would be unlikely to provide benefits, indeed increasing the capacity through substantial widening described would normally be expected to increase the desirability of the road as alternatives to other routes. The applicant seeks to avoid this outcome in principle, does not believe that the standards contained with the DMRB are appropriate for the forecasted flows, and as such does not see merit in investigating the feasibility of upgrading these roads to trunk road standards.
REP2-083-006

Sub-Question
Appendix E; MIAG – Report into HGV swept paths, July, 2022 Report on Heavy Goods Vehicle Swept Path analysis within Messing village Messing village T junction – swept path analysis for 16.5m long articulated HGV The 16.5 m long "Design Vehicle" has the worst case swept path for vehicles permitted to use UK highways. Swept paths shown are theoretical and would vary slightly dependant on the driver of a particular vehicle. 1.0 From Kelvedon Road into Harborough Hall Road assuming no vehicles parked. The design vehicle would be able to approach the T junction without impeding vehicles travelling in the opposite direction, on Kelvedon Road. After turning right into Harborough Hall Road, the design vehicle would occupy nearly the full width of the road and therefore require vehicles travelling in the opposite direction to give way. Harborough Hall Road is quite narrow making it difficult for vehicles travelling in the opposite direction to find somewhere to give way. 2.0 From Kelvedon Road into Harborough Hall Road assuming with vehicles parked. On approach to the T junction the design vehicle would be forced into the opposing carriage-way by parked vehicles thereby forcing vehicles travelling in the opposite direction on Kelvedon Road to give way. At the give way line of the T junction the design vehicle would need to occupy the opposing carriageway to avoid the trailer colliding with parked vehicles near to the junction. After turning right into Harborough Hall Road, the design vehicle would again occupy nearly the full width of the road and therefore require vehicles travelling in the opposite direction to give way, but as before this would be difficult due to the narrow width of Harborough Hall Road. 3.0 Harborough Hall Road to Kelvedon Road assuming no vehicles parked. On approach to the T junction along Harborough Hall Road the design vehicle would occupy nearly the full width of that road. Where the road widens at the junction the design vehicle would need to occupy most of the opposing carriageway before turning left into Kelvedon Road, to allow for the swept path of the trailer. Vehicles travelling in the opposite direction would need to give way but with no parked vehicles there would be space to do this. On entering Kelvedon Road the design vehicle might need to cross into the opposite carriageway slightly. This would not leave much width for vehicles travelling in the opposite direction and most likely they would need to give way to the design vehicle. 4.0 Harborough Hall Road to Kelvedon Road assuming with vehicles parked. On approach to the T junction along Harborough Hall Road the design vehicle would occupy nearly the full width of that road. Assuming there were vehicles parked on the west side of Harborough Hall Road the design vehicle would need to move over to the opposing carriage-way earlier than if no vehicles were parked. This would allow a better approach into Kelvedon Road by bringing the trailer further away from the nearside road edge before making the

turn. Vehicles travelling in the opposite direction on Harborough Hall Road would again need to give way while the design vehicle was completing its manoeuvre but there should be enough space available. The design vehicle would be able to avoid vehicles parked on the north side of Kelvedon Road. Vehicles travelling on Kelvedon Road towards the T junction would need to give way to the design vehicle
Applicant's Response
The Applicant notes the Report into HGV Swept Paths included in the Statement of Common Ground (SoCG) has not previously been received by the Applicant. The report from the Interested Party assumes a 16.5m articulated Heavy Goods Vehicle (HGV) as the design vehicle for swept path analysis of the Harborough Hall Road/Kelvedon Road junction to indicate the impact that large vehicles might have if they use this junction to access Inworth Road via Kelvedon Road and vice versa. The Applicant has reviewed this junction and the expected usage by HGVs with regard to the Manual for Streets guidelines on designing local roads for large vehicles. Manual for Streets Chapter 6 states that the design of local roads should accommodate large vehicles without allowing their requirements to dominate the layout, and that on streets with low traffic flows and speeds it may be assumed that large vehicles will be able to use the full width of the carriageway to manoeuvre the junction. The predicted traffic flow with the proposed scheme in place is 8 HGVs out of 133 vehicles using the junction in the AM peak, and 4 HGVs out of 109 vehicles using the junction in the PM peak. The 16.5m articulated vehicle is one example of a HGV, however other HGVs are smaller therefore this does not mean 8 and 4 HGVs in the AM and PM peaks respectively are 16.5m articulated vehicles. At the predicted level of traffic flows it is common to expect drivers of large vehicles to wait for cars to clear before passing through the junction. On this basis, the Applicant is not proposing intervention works to widen the carriageway at this location.

REP2-083-007

Sub-Question

Appendix F; Report on Inworth Road and Roundabout, May, 2022 Inworth Road Roundabout design checks: Please Note: Design checks have been based on the scheme as shown at Public Consultation November 2021. Design checks have been carried out on pdf files which are likely to have suffered some distortion from the original engineering drawings. However, the comments made below would not change if the original engineering design model was checked. Google Maps screen shots have been used as a background. This is permitted by Google Maps terms. Reference documents used: a12chelmsford-to-a120-widening-Engineering Plans A12chelmsford-to-A120-widening-General Arrangements DMRB CD 109 DMRB CD 116 DMRB CD 123 1. Inworth Road Roundabout arm to B1023 in the direction of Feering and Kelvedon Key: 120m long sight line approaching roundabout ---------- 120m long sight line exiting roundabout ---------- Not to scale Horizontal alignment Design speed has been assumed to be 70 kph based on the vertical crest curve K value of 30 used. The B1023 Inworth Road in this area is currently subject to a 50 mph speed limit which equates to an 85 kph design speed. Does the designer intend to lower the speed limit to 40 mph to suit a 70 kph design speed? Horizontal alignment consists of 3 elements: Straight, Length = 3.922m RH curve, Radius = 65.0 m, Length = 63.660m Straight, Length = 28.972m (No transition curves have been used between elements) The value of 65m for a horizontal radius does not comply with DMRB standard CD 109 Highway Link Design, para. 2.11 which states: "Values for stopping sight distance, horizontal curvature and vertical curvature shall not be less than those given in Table 2.10 for 50kph design speed regardless of permitted relaxations." No transition curves have been provided between horizontal elements. This does not comply with CD 109, para. 4.12 which states: "Transition curves shall be provided on curves with radii less than shown in Table 2.10 (minimum R with adverse camber and without transitions)." Visibility For a design speed of 70 kph the desirable minimum stopping sight distance (SSD) is 120m as given by CD 109 Table 2.10 Design speed related parameters. Forward visibility on approach to the roundabout will not comply with CD 109 unless the sight line passes outside the Red Line boundary into the property "Park Farm" (or "Stonefield Farm"?). Visibility would be further impeded by proposed tree planting. No relaxation in SSD is permitted on the immediate approach to a junction as defined by CD 109 para. 2.13 note 6): "for roundabouts, those lengths of carriageway on the approach to the junction

between a point 1.5 times the desirable minimum stopping sight distance from the give way line and the give way line itself". □ No verge widening has been provided in the design to allow for uninterrupted visibility for vehicles entering or leaving the roundabout. CD 109 states that "The stopping sight distance shall be free of obstructions by fixed objects with the exception of: 1) A fixed object with a width / length less than or equal to 550mm; 2) A group of fixed objects with a combined width / length of 550mm or less 3) Those obstructions covered by the relaxations below. Note 1 Isolated slim objects less than or equal to 550mm in width / length, such as lighting columns, sign supports, or slim footbridge support, only result in intermittent obstructions to sight lines. Note 2 On horizontal curves where the road is in cutting, or at bridge crossings, verges and central reserves can be widened or bridge clearances increased to ensure the appropriate stopping sight distance is not obstructed. Note 3 Verge and central reserve widening is sometimes required on horizontal curves to provide stopping sight distance in front of VRS." □ As with the approach to the roundabout, forward visibility on exiting the roundabout would not comply with DMRB CD 116 Geometric Design of Roundabouts unless the sight line passes outside the Red Line boundary into the property "Park Farm". CD 116 para.3.50 states: "On the circulatory carriageway, the exit visibility shall conform to Table 3.43. NOTE Once a vehicle has crossed the inscribed circle at the exit from the roundabout, the SSD is to follow the requirements and advice provided in CD 109 " Vertical Alignment The alignment is not long enough to make a judgement about visibility in the vertical plane. It would need to be extended further along the B1023 in order to see what the existing carriageway geometry is. The use of a vertical crest curve with K = 30 would indicate a 70 kph design speed since no relaxations are permitted on the immediate approach to a junction (CD 109 table 2.10, CD 109, para. 2.11). The sight line would most likely be impeded by property boundaries where it passes outside the Red Line boundary. The vertical alignment is made up of 4 elements: Straight gradient at +4.140%, length = 10.329m Crest curve with K = 30, length = 64.183m Straight gradient at +2.001%, length = 1.374m Straight gradient at -2.281%, length = 8.769m (The last 2 elements show a roundabout crown line hence no vertical curve between two gradients) 2. Inworth Road Roundabout arm to Kelvedon Rd. in the direction of Messing Key: 70m long sight line approaching roundabout ---------- ---------- 70m long sight line exiting roundabout ---------- Not to Scale Horizontal alignment Design speed has been assumed to be 50 kph based on the vertical crest curve K value of 10 used. Kelvedon Road is currently subject to a national speed limit, which varies from 40mph to 60mph dependant on vehicle type. It would be interesting to know why a 50kph design speed has been chosen. Horizontal alignment consists of 3 elements: Straight, Length = 11.809m RH curve, Radius = 50.0 m, Length = 40.059m LH curve, Radius = 40.0m, Length = 48.885m (No transition curves have been used between elements) □ The value of 50m and 40m for horizontal radii do not comply with DMRB standard CD 109, para. 2.11

which states: "Values for stopping sight distance, horizontal curvature and vertical curvature shall not be less than those given in Table 2.10 for 50kph design speed regardless of permitted relaxations." Sharp curves are not good practice on the approach to a roundabout. CD 116 para 3.6.9 NOTE 3 states that: "Reverse curves (to the right and then to the left on the approach) can be effective in providing additional deflection on poorly aligned existing roundabouts, but sharp curves are not good practice and could induce HGV rollover or accidents involving powered two wheelers (PTW) No transition curves have been provided between horizontal elements. This does not comply with CD 109, para. 4.12 which states: "Transition curves shall be provided on curves with radii less than shown in Table 2.10 (minimum R with adverse camber and without transitions). It appears that no curve widening has been allowed for on the horizontal radii of 50m and 40m For horizontal curves with a low value of radius the carriageway should be widened to allow for the swept path of long vehicles. CD 109 gives values for radii as low as 90m, the minimum radius that should be used for a highway (CD 109 para. 2.11). For radii lower than 90m CD 123 Table 5.10 "Lane widening on curves of 90m radius or less" should be used. A swept path analysis for a 16.5m long articulated heavy goods vehicle (the design vehicle) should be made. Visibility For a design speed of 50 kph the desirable minimum stopping sight distance (SSD) is 70m as given by CD 109 Table 2.10 Design speed related parameters. Forward visibility on approach to the roundabout will not comply with CD 109 unless the sight line passes outside the Red Line boundary on the north side of Kelvedon Road. Visibility may be further impeded by proposed tree planting. No relaxation in SSD is permitted on the immediate approach to a junction as defined by CD 109 para. 2.13 note 6) : " for roundabouts, those lengths of carriageway on the approach to the junction between a point 1.5 times the desirable minimum stopping sight distance from the give way line and the give way line itself; " No verge widening has been provided in the design to allow for uninterrupted visibility for vehicles entering or leaving the roundabout. CD 109 states that "The stopping sight distance shall be free of obstructions by fixed objects with the exception of: 4) A fixed object with a width / length less than or equal to 550mm; 5) A group of fixed objects with a combined width / length of 550mm or less 6) Those obstructions covered by the relaxations below. Note 1 Isolated slim objects less than or equal to 550mm in width / length, such as lighting columns, sign supports, or slim footbridge support, only result in intermittent obstructions to sight lines. Note 2 On horizontal curves where the road is in cutting, or at bridge crossings, verges and central reserves can be widened or bridge clearances increased to ensure the appropriate stopping sight distance is not obstructed. Note 3 Verge and central reserve widening is sometimes required on horizontal curves to provide stopping sight distance in front of VRS." As with the approach, forward visibility on exiting the roundabout would not comply with DMRB CD 116 unless the sight line passes outside the Red Line boundary into the property "Park Farm". CD 116 para.3.50 states: "On the

circulatory carriageway, the exit visibility shall conform to Table 3.43. NOTE Once a vehicle has crossed the inscribed circle at the exit from the roundabout, the SSD is to follow the requirements and advice provided in CD 109 " Vertical Alignment The alignment is not long enough to make a judgement about visibility in the vertical plane. It would need to be extended further along Kelvedon Road in order to see what the existing carriageway geometry is. The use of a vertical crest curve with K = 10 would indicate a 50 kph design speed. Since no relaxations in vertical curvature are permitted on the immediate approach to a junction 50kph would be the highest value of design speed for a crest K value of 10 (CD 109 table 2.10, CD 109, para. 2.11). The sight line would most likely be impeded by property boundaries where it passes outside the Red Line boundary. The vertical alignment is made up of 3 elements: Straight gradient at +2.028%, length = 19.382m Crest curve with K = 10, length = 6.781m Straight gradient at +1.350%, length = 68.365m 3. Inworth Road Roundabout arm to B1023 in the direction of Tiptree Key: 70m long sight line approaching roundabout ---------- 70m long sight line exiting roundabout ---------- Not to Scale Horizontal alignment Design speed has been assumed to be 70 kph to be consistent with the design speeds of the arm connecting to the link road to A12 Junction 24 south roundabout and the arm to B1023 to Kelvedon. The B1023 Inworth Road in this area is currently subject to a 50 mph speed limit which equates to an 85 kph design speed. Does the designer intend to lower the speed limit to 40 mph to suit a 70 kph design speed? Horizontal alignment consists of 3 elements: Straight, Length = 30.212m LH curve, Radius = 90 m, Length = 62.452m Straight, Length = 49.241m (No transition curves have been used between elements) No transition curves have been provided between horizontal elements. This does not comply with CD 109, para. 4.12 which states: "Transition curves shall be provided on curves with radii less than shown in Table 2.10 (minimum R with adverse camber and without transitions)." Visibility For a design speed of 70 kph the desirable minimum stopping sight distance (SSD) is 120m as given by CD 109 Table 2.10 Design speed related parameters. Forward visibility on approach to the roundabout will not comply with CD 109 unless the sight line passes outside the Red Line boundary into the property "The Laurels". Visibility may be further impeded by proposed tree planting. No relaxation in SSD is permitted on the immediate approach to a junction as defined by CD 109 para. 2.13 note 6): "for roundabouts, those lengths of carriageway on the approach to the junction between a point 1.5 times the desirable minimum stopping sight distance from the give way line and the give way line itself". No verge widening has been provided in the design to allow for uninterrupted visibility for vehicles entering or leaving the roundabout. CD 109 states that "The stopping sight distance shall be free of obstructions by fixed objects with the exception of: 7) A fixed object with a width / length less than or equal to 550mm; 8) A group of fixed objects with a combined width / length of 550mm or less 9) Those obstructions covered by the relaxations below. Note 1 Isolated slim objects

less than or equal to 550mm in width / length, such as lighting columns, sign supports, or slim footbridge support, only result in intermittent obstructions to sight lines. Note 2 On horizontal curves where the road is in cutting, or at bridge crossings, verges and central reserves can be widened or bridge clearances increased to ensure the appropriate stopping sight distance is not obstructed. Note 3 Verge and central reserve widening is sometimes required on horizontal curves to provide stopping sight distance in front of VRS." In addition to the roundabout entry the segregated left turn lane (SLTL) should provide for stopping sight distance of 120m. This would also cross the Red Line boundary into the property "The Laurels". CD 116 para. 6.24 states that "The desirable minimum SSD for the SLTL shall be the lesser of: 1) The SSD obtained from CD 109 for the design speed of the approach; or 2) The SSD given in Table 6.27 of this document appropriate to the maximum nearside curve radius. The maximum nearside radius of the SLTL in this design appears to be about 90m, which falls within the Table 6.27 range 80m-100m radius. This gives an SSD of 120m, which is the same SSD as for the approach alignment. As with the approach to the roundabout, forward visibility on exiting the roundabout would not comply with CD 116 unless the sight line passes outside the Red Line boundary into the property "The Laurels". CD 116 para.3.50 states: "On the circulatory carriageway, the exit visibility shall conform to Table 3.43. NOTE Once a vehicle has crossed the inscribed circle at the exit from the roundabout, the SSD is to follow the requirements and advice provided in CD 109 " Vertical Alignment The alignment is not long enough to make an exact judgement about visibility in the vertical plane. It would need to be extended further along the B1023 in order to see what the existing carriageway geometry is. The sight line would most likely be impeded by property boundaries where it passes outside the Red Line boundary. The vertical alignment is made up of 1 element: Straight gradient at -0.281%, length = 138.393m

Applicant's Response

The Applicant notes the Inworth Road Roundabout Design Checks report provided by the Interested Party in May 2022. The Applicant responded to this report and the 'Report on the Technical Design of the National Highways Proposal for Junction 24' in a letter dated 4th August 2022. The letter has been included in Appendix B of this document.

To summarise the letter, the Inworth Road roundabout and approaches from Inworth Road and Kelvedon Road have been designed in accordance with the Essex County Council's Highways Technical Manual and Manual for Streets, which is more

suited to the local nature of the road rather than the Design Manual for Roads and Bridges. The design standards from CD 109 referenced in the Interested Party's report is not correct for the 30mph design speed adopted in the proposed scheme. If these design standards were adopted, the proposed 30mph speed limit would not expected to be self-enforcing due to the generous horizontal alignment and visibility splays which would give drivers the impression that higher speeds would be appropriate. The preliminary design presented in the DCO submission achieves the standards set out in the Essex Highways Technical Manual, and Manual for Streets.

REP2-083-008

Sub-Question

Appendix G; MIAG – Report on technical aspects of Inworth Road widening and proposed roundabout, May, 2022 Report on the Technical Design of the National Highways Proposal for Junction 24 1.0 Overview This report is to discuss the technical design of the National Highways (NH) (formerly Highways England) proposal for the improvement of the A12 and the construction of a new junction 24 connected to the B1023. It is our belief that the original proposal does not comply with National Design Standards and does not address the problems of capacity of the surrounding roads. This report is supplementary to the report produced in February by Messing Action Group on the impact of the Junction 24 proposals on Messing and Inworth, and should be consulted for further information. 2.0 National Highways Proposal for Junction 24 The Proposal, from National Highways, (NH) was to 'Construct a New Junction 24 on the A12, south of Inworth Road. (To) Provide slip roads terminating where the Messing Road meets Inworth Road so that all traffic joining or leaving the A12 would use the Inworth Road'. Refer to the map in Appendix A. The consultation documents make no referral to the effects of the proposed scheme on the lanes leading to Messing or any other surrounding lanes. The proposal also allows for significant road improvements to the B1023 through Inworth village to bring it closer to the required standard to handle the increased volume of traffic. These works are highlighted in the NH document "A12 Chelmsford to A120 widening, Supplementary Consultation, November 2021" and shown on the plans Sheets 14 and 20 in Map Book 3: Updated General Arrangements (Set 3 of 3). The proposals are also shown in Appendix B of this report. 3.0 Comments on the Design The design has been examined closely with respect to horizontal and vertical alignment, sightlines and stopping distances and found not to comply with National Design Standards. Specific issues are

discussed in detail in the following paragraphs. It must be stressed that this is not an exhaustive list and there may well be other aspects that do not comply. 3.1 Kelvedon Road, Messing The siting of the proposed Inworth Road Roundabout near to the existing junction of B1023 Inworth Road and Kelvedon Road gives a relatively easy path for vehicles leaving the A12 to access Kelvedon Road leading to Messing village. This may provide opportunity for drivers tempted to "rat run" through Messing village to connect with the B1022 at the south end of Harborough Hall Road. Siting the proposed roundabout at a location further away from Kelvedon Road would make this route less attractive. MIAG are rightly concerned regarding the suitability of roads in the vicinity of Messing village to cope with the significant increases in traffic volumes predicted. As demonstrated in the Messing Action Group Report these roads are sub-standard in respect of width, horizontal curvature, possibly vertical crest curvature, stopping sight distance, forward visibility to junctions and accesses and an absence of formal passing places. These roads are not wide enough to cater for motor vehicles passing pedestrians, cyclists and equestrian users under recently revised Highway Code rules. As stated in the report these roads fall short of the minimum road width of 5.5m that would be necessary to allow two vehicles to pass at low speed. Manual for Streets shows that 5.5m is sufficient for a heavy vehicle and a car to pass but this would be for a straight section of road alignment in an urban area. When horizontal curvature falls below a 90m radius, as it frequently does on these roads, there would be a requirement for widening above 5.5m width on curves to allow for the swept path of heavy vehicles. 3.2 Effect of NH Proposal on traffic through Inworth is a small community of around 30 properties, including a number of listed buildings, with All Saints Church in the centre. The majority of the properties are directly fronting the B1023, with driveways onto the road. A few properties are set back from the road, with longer driveways from the road. The B1023 through Inworth is currently substandard with a number of pinch points and is poorly drained, with frequent instances of flooding following heavy rainfall. At certain points the carriageway is not wide enough to allow two HGV's to pass. There is a 30mph speed limit through the village, but there have been numerous reports of speeding. NH propose to carry out certain road improvements through Inworth Village, including limited road widening. These improvements require land-take from a number of properties, but will not bring the road up to the required design standard. 3.3 Hinds Bridge The NH proposal does not address the pinch point at Hinds Bridge on the B1023. NH traffic forecasts indicate that traffic flows over this bridge are expected to be around 900 vehicles in the peak hour. Hinds Bridge is narrow and only just wide enough for two cars to pass. A considerable number of HGV's use this road and hold-ups occur frequently. The road is also used by buses, both for the service that connects Tiptree to Kelvedon and Witham and also for school buses serving Thurstable School. Congestion caused by HGV's 04 May 2022 at 10:20am 3.4 Inworth Road Roundabout Referring to the consultation drawing HE551497-JAC-HSR-S3_J24-DR-C-0002

revision P02, the proposed Inworth Road Roundabout itself is badly designed in certain respects. It is questionable if it could be built to compliant standards in the location shown by the consultation drawings, even if the design was further developed. The horizontal alignment of the arm from Kelvedon Road to the roundabout incorporates a short straight followed by a 50m right hand radius immediately followed by a 40m left hand radius, there are no transition curves provided between these elements. National Highways document CD 109 Highway Link Design para. 4.12 states that "Transition curves shall be provided on curves with radii less than shown in Table 2.10 (minimum R with adverse camber and without transitions)". There also appears to be no widening allowed for on these small radius curves for the swept path of heavy vehicles. No verge widening has been provided to allow for stopping sight distance on the approach to the roundabout from Kelvedon Road. For vehicles leaving the roundabout stopping sight distance should follow the requirements of CD 109 once a vehicle has crossed the inscribed circle diameter of the roundabout, as stated in the note below para. 3.50 of Document CD 116 Geometric Design of Roundabouts. No relaxation in stopping sight distance would be permitted in combination with the relaxations in horizontal curvature (CD 109 para. 2.12). Proposed tree planting in the verges would further impede visibility. CD 116 para. 3.6.9 Note 3 advises that right-left reverse curves on the approach to poorly aligned existing roundabouts can be effective in providing additional deflection but also notes that "sharp curves are not good practice and could induce HGV rollover or accidents involving powered two wheelers (PTW) ". Although not an existing roundabout the reference to "sharp curves" is still relevant and the 40m and 50m curve radii used for this approach are "sharp curves". They do not conform to the requirement of CD 116 para. 3.36.1 Note 2 which states that "in advance of the entry flare, approach curvature follows CD 109 [Ref 3.N] requirements on horizontal radius". The vertical alignment of this roundabout arm uses a crest curve with a K value of 10, which is the desirable minimum for a 50kph design speed. Therefore, assuming this arm has been designed for a 50kph design speed the minimum value for horizontal radius given by CD 109 Table 2.10 is 90m, which is 2 steps below the desirable minimum radius of 180m. CD 109 para. 2.11 states that "values of stopping sight distance, horizontal curvature and vertical curvature shall not be less than those given in Table 2.10 for 50 kph design speed regardless of permitted relaxations." As noted previously, no verge widening has been provided for visibility on the approach to or exit from this roundabout. Desirable minimum stopping sight distance of 70m should be provided for vehicles approaching the roundabout from 105m in advance of the give way line. Due to the small horizontal radii used, verge widening would be quite substantial to provide compliant stopping sight distance. Proposed tree planting would also need to be moved back behind sight lines. By providing an alignment with 90m radii in place of the 40m and 50m radii and with appropriate transition curves the alignment would be pushed into the property to the north east side of the existing B1023/ Kelvedon Road

junction. The red-line boundary given on consultation drawing HE551497-JAC-HCN-SCHW-DR-C-0014 revision P05 would not allow for this. The arm connecting the proposed roundabout to Inworth Road north of the roundabout (consultation drawing HE551497-JAC-HSR-S3_J24-DR-C-0003 revision P02) has similar issues to the Kelvedon Road arm. The vertical alignment has a vertical crest curve with a K value of 30, which would suggest a 70kph design speed (40mph) has been used. It is worth noting that this section of Inworth Road is currently subject to a 50mph speed limit, which is the equivalent of an 85 kph design speed. The radius of the horizontal alignment approaching the roundabout is only 65m (the desirable minimum radius for 70kph design speed is 360m) and again does not have any transition curves between alignment elements, nor does it show any verge widening for visibility. For vehicles approaching the roundabout this would be a right-hand curve. The line of forward visibility would therefore cross into the opposing lane and would be obscured by vehicles exiting the roundabout, this is poor design. For a 70kph design speed the stopping sight distance is 120m and this should be available from 180m in advance of the give way line. This is a mandatory requirement (CD 109 para. 2.13 Note 6) but the proposed alignment would not be able to accommodate the stopping sight distance without passing through the property boundary of Park Farm on the west side of the B1023. The red-line boundary given on consultation drawing HE551497-JAC-HCN-SCHW_DR-C-0014 revision P05 does not allow for this. If a CD 109 compliant horizontal radius was used for this alignment the intrusion into Park Farm would be even greater. The position of proposed tree planting should also be considered and placed behind sight lines to avoid impeding visibility. The arm connecting the proposed roundabout to Inworth Road south of the roundabout (consultation drawing HE551497-JAC-HSR-S3_J24-DR-C-0002 revision P02) is assumed to have the same 70 kph design speed as the arm to the north. This section of Inworth Road is currently subject to a 50mph speed limit, the equivalent of an 85kph design speed. The vertical alignment has a longitudinal gradient of -0.281% which is insufficient to allow effective drainage of the carriageway. Care would need to be taken to ensure there were no flat-spots where changes in superelevation occur. The horizontal alignment approaching the roundabout consists of a straight element followed by a 90m radius left hand curve, then another straight element. No transition curves have been used between elements. As already noted for other arms of this roundabout CD 109 Highway Link Design para. 4.12 states that "Transition curves shall be provided on curves with radii less than shown in Table 2.10 (minimum R with adverse camber and without transitions)". Proposed verge widening would be insufficient to allow compliant forward visibility on approach to the roundabout give way line. No relaxation in stopping sight distance is permitted on the immediate approach to a roundabout as defined by CD 109 para. 2.13 note 6. Widening the verge to allow compliant visibility would encroach into the property "The Laurels" and would be outside of the red-line boundary. Proposed tree planting would also impede visibility unless moved back

behind sight lines. In addition to the roundabout entry the proposed design shows a segregated left turn lane (SLTL) for Tiptree to A12 Junction 24 bound traffic. Stopping sight distance of 120m should be provided for the SLTL based on the maximum nearside radius, which appears to fall between 80m – 100m. For radii in this range CD 116 Table 6.27 requires a 120m stopping sight distance, the same as for the approach road. CD 116 para. 6.24 states that "The desirable minimum SSD for the SLTL shall be the lesser of: 1) The SSD obtained from CD 109 the design speed of the approach; or 2) The SSD given in Table 6.27 of this document appropriate to the maximum nearside curve radius. Forward visibility for vehicles exiting the roundabout would also pass outside the red-line boundary into the property "The Laurels" in order to comply with CD 116 para. 3.50. No relaxation in stopping sight distance could be permitted due to relaxations in horizontal curvature (CD 109 para. 2.12). The position of the link road between A12 Junction 24 south roundabout and Inworth Road Roundabout severs a large area of land between the link road and the A12 southbound exit slip road. This area has been identified as being permanently acquired by NH and as a possible location for a site compound, soil storage area and haul road during construction. There does not appear to be a use defined for this land after completion of the works. 3.5 Road Improvements through Inworth village The alignment of the Inworth road through the village is considerably below current design standards in respect of horizontal radius, stopping sight distance and width. It also has numerous private properties with direct access onto Inworth Road. Stopping sight distance should not be relaxed where there are so many accesses. NH have proposed to widen Inworth Road through the village to bring the width to current standards (Appendix B). However, this would not address the geometry of the alignment, which currently has horizontal radii of about 75m in front of All Saints Church and 145m to the north of the village. To provide compliant stopping sight distance would require significant verge widening and intrusion into residential properties. For example, opposite All Saints Church verge widening of up to 6m would be required to provide compliant stopping sight distance. At the northern end of the village, where there is a 145m radius curve, there is no verge on the inside of that curve. A verge of up to 3.5m width would be required to provide for compliant stopping sight distance. Widening for sight lines would have a considerable impact on private properties. B1023 approaching All Saints Church (looking south) – shows frequency of accesses, narrow verges, low radius (approximately 75m) curve and limited visibility. B1023 north of Inworth village (looking north) – Approximately 145m radius with no verge to allow compliant stopping sight distance 4.0 Conclusions The National Highways proposed Inworth roundabout does not comply with National Highways design standards in its current form and position. It would require further land take from adjacent properties to allow for a compliant design, if the roundabout was to remain in this location. It is evident that a full redesign of this roundabout will be needed and unlikely that the proposal can be carried out within the NH red-line boundary. The proposed road

improvements in Inworth Village are insufficient to bring that section of road up to the required design standard. They do not deal fully with the pinch-points in this section of road and will not alleviate the problems of increased congestion. The issue of the pinch point at Hinds Bridge has not been addressed in any of the documentation and remains a serious problem, even with the current traffic levels. 5.0 List of Appendices 5.1 Map of Area showing National Highways proposal for Junction 24 5.2 Map of Inworth showing National Highways for road improvements 5.1 Appendix A Map of Area showing Network Highways proposal for Junction 24 5.2 Appendix B Map of Inworth showing Network Highways proposed road widening
Applicant's Response
The Applicant notes the Report on the Technical Aspects of Inworth Road Widening and Proposed Roundabout provided by the Interested Party in May 2022. The Applicant responded to this report in a letter dated 4th August 2022. In summary, the Inworth Road roundabout and approaches from Inworth Road and Kelvedon Road have been designed in accordance with the Essex County Council's Highways Technical Manual and Manual for Streets, which is more suited to the local nature of the road rather than the Design Manual for Roads and Bridges. The design standards from CD 109 referenced in the Interested Party's report is not correct for the 30mph design speed adopted in the proposed scheme. If these design standards were adopted, the proposed 30mph speed limit would not likely to be self-enforcing due to the generous horizontal alignment and visibility splays which would give drivers the impression that higher speeds would be appropriate. The preliminary design presented in the DCO submission achieves the standards set out in the Essex Highways Technical Manual, and Manual for Streets.
REP2-083-009
Sub-Question
Appendix H; MIAG – document prepared for Village Hall meeting, October, 2022 Messing and Inworth Action Group Messing-cum-Inworth Parish Council In regard to; National Highways 'public meeting' 21.10.22 Definition of 'consultation'; 'Deliberation, or

a meeting for deliberation' Definition of 'deliberation'; 'To consider, or think about carefully' MIAG and McI PC do not believe that National Highways have either 'consulted' or 'deliberated' the Main Alternative. The A12 - Junction 24 has only been available to review and consult since late summer of 2020. We believe that National Highways have created a false narrative around their plan for this Junction, and denigrated without substantive reasoning, and through their confirmation bias, the Main Alternative. Despite the false illusion created by statements from National Highways, the Planning Inspectorate has MADE NO DECISION. The substantive design and engineering proposals for the MAIN ALTERNATIVE HAVE NOT YET been reviewed by the Planning Inspectorate, nor any challenges made to National Highways as a consequence. There will be a full legal challenge to the Development Consent Order, which we believe to have been poorly drafted. We also believe it seeks wide ranging and excessive powers arrogated to National Highways, with no justification or need, for years to come. The Gunning Principles have been established to attempt to ensure proper process is followed and proper consultation and deliberation surround the decision making process. 1. Proposals are still at a formative stage; A final decision has not yet been made, nor predetermined, by the decision makers; 2. There is sufficient information to give 'intelligent consideration'; The information provided must relate to the consultation and must be available, accessible, and easily interpretable for consultees to provide an informed response; 3. There is adequate time for consideration and response; There must be sufficient opportunity for consultees to participate in the consultation. There is no set timeframe for consultation, despite the widely accepted twelve week consultation period, as the length of time given for consultees to respond can vary depending on the subject and extent of impact of the consultation; 4. 'Conscientious consideration' must be given to …… responses before a decision is made; Decision makers should be able to provide evidence that they took consultation responses into account; WE BELIEVE THAT NATIONAL HIGHWAYS CONTINUE TO BREACH ALL OF THESE LEGAL PRINCIPLES. Appendix J; MIAG – Benefits of Main Alternative The villagers of Messing and Inworth are facing a dramatic change to their quality of life and to their right to enjoy the quiet peace of the countryside. However, they also recognise that the UK transport infrastructure is a vital part of modern life and it is necessary for this to be constantly upgraded and maintained to the highest possible standard. This is why, despite the changes and challenges to be faced by the two villages, there has been no opposition to the development of the A12 corridor. The villages and their representatives fully acknowledge the need to upgrade that major arterial route and new entry and exit junctions are a necessary part of this. The villages of Messing and Inworth are not opposed to the creation of a junction on the A12 at point 24 but safety is paramount. The concerns of the villagers, expressed through the actions and endeavours of the Messing and Inworth Action Group, (MIAG), are to ensure the best possible standards of safety for those living in the villages, and, equally importantly, for

the road users on the A12 and surrounding roads. This includes horse riders, cyclists, pedestrians and school children. The concerns voiced by all stakeholders, from Essex County Council, Parliament and the MIAG about the National Highways proposal for Junction 24 are dealt with in great detail in other reports and will not be addressed here. This document is solely to review the benefits of the Main Alternative, (MA), and no mention has been made of the concomitant negatives. On the stated basis that Essex County Council 'will never have enough money' to bring all roads surrounding the proposed Junction 24 up to minimum Highways Standard levels of safety, the Main Alternative (MA) offers the following solutions and benefits; 1. The route of the MA new road system across land that does not create land 'islands' surrounded by roads. The dangers of access and egress for farmers, or subsequent house developments, are clear and obvious. The MA follows, for large part, the old "Cockle line" route. This means that much of the gradient and shaping work has already been outlined. 2. The substrate of the MA route would be constructed to Highways Standard, whereas the route today is of a substandard construction incapable of supporting high volumes of traffic and heavy goods vehicles. 3. Road safety standards would be intrinsically woven into the MA route design, whereas today these roads are dangerous in multiple respects including the fact that they are not sealed, no kerbs, have no formalised passing places, inadequate road surface drainage, causing the B1023 to be flooded on a regular basis. 4. Major disruption to traffic flow would be avoided, as the connections to B1023 and A12 would only need to be completed when all the other parts of the road building are finished. 5. Construction of the MA route would provide a safe working environment for road construction staff and residents, eliminating all safety hazards / risks associated with working on a "live road" (existing B1023). 6. The route of the MA avoids bottle necks and pinch point issues that would require major land acquisition and massive disturbance to residents and road users on the B1023 (Inworth Road). The difficulties of Hinds Bridge and Kelvedon Road would be completely negated; 7. The B1023 stretch of road serving Inworth is already a Royal Mail 'no go' area as postal services will not deliver to properties on the road as it is deemed too dangerous. The MA allows normal expected delivery services to operate safely, and this would include food delivery and parcel services. Safe access and egress from private properties is also assured with the adoption of the MA; 8. The need to conduct major upgrade works on all local roads that would act as feeder and 'rat run' routes to Junction 24 would be obviated by the creation of the MA; 9. Ancient village buildings, including the Church in Messing and the Conservation Area at the heart of Messing would be preserved, as there would be no material advantage for traffic to use these roads. The original Messing Action Group report highlights all the dangers of this anticipated traffic flow. The corollary rational is that by adopting the MA all these issues and safety risks are removed. 10. The safety of schoolchildren whilst both walking to and from school on the existing roads, and their wellbeing from breathing clean air, is also maintained by the benefits

of adopting the MA. 11. Safety is an absolute priority for NH and the MA enables the safety of all road users, motorised or other, to be maintained to the highest possible and practical levels; 12. The adoption of the MA route would provide NH with a "Right First Time" culture. There would be no additional expense in rectifying deficiencies associated in an attempt to modify B1023 road configuration and roundabout improvements. 13. Design and construction of the MA road will provide better sound proofing/barriers mitigating noise levels from increased traffic volumes. 14. Road speed can be increased as the road will no longer be residential. (*Special road surface material can be used to reduce noise, no benefit under 30mph) 15. Point 13 will improve and protect historical buildings from vibrations caused by increase of traffic volumes. 16. Sustainability – MA will be purpose built to accommodate future increase in traffic volumes from surrounding developments in Tiptree, Tolleshunt D'arcey, Maldon and other villages and communities. 17. Adoption of MA by ECC – Because the road will be constructed to latest specifications and regulations, the maintenance of the road and its surface condition will provide financial relief for ECC/Essex Highways for a considerable period than if the B1023 was amended. 18. The MA will permit the B1023 to return to being a village road, allowing walkers, cyclists, and horse riders to use the entire length of B1023 (from Feering boundary to Perrywood Nursery) with confidence and safety. 19. Traffic calming measures could be deployed along B1023 making point 14 safer for walkers, cyclists and horse riders. 20. If MA is required to be maintained or due to a vehicle accident the road is closed, the B1023 can provide temporary relief for traffic to access Jct 24. If the NH B1023 plan was to experience the same scenario, there would be no alternative route (e.g. Hines Bridge Closure). 21. Adoption of the MA plan will improve resident's wellbeing and enjoyment of their properties.
Applicant's Response
The Applicant notes that this appears to be a leaflet created by the Interested Party. Design decisions on the project, including not adopting the "Main Alternative", have been subject to cross discipline analysis. In the case of the "Main Alternative" the Applicant has submitted the Junction 24, Inworth Road and Community Bypass Technical Report [APP-095].

The project is currently in the Examination stage of the Development Consent Order process whereby, careful consideration is given by the Examining Authority to all the important and relevant matters including the representations of all the Interested Parties.

The Applicant believes it has discharged its consultation duties fully prior to the submission of the application for development consent. It has fully reported on the likely impacts of the proposed scheme on identified receptors, including in the villages of Inworth and Messing.

The Applicant's approach to consultation can be found in statement of Community Consultation [APP-052], as well as Consultation Report [AP 045].Consideration of consultation responses can be found in Annex N of the Consultation Report [APP-062]

The host highway authority and all host local authorities confirmed in their Adequacy of Consultation representations that the Applicant had carried out adequate preapplication consultation in accordance with the provisions as set out in Sections 42, 47 and 48 of the Planning Act 2008.

REP2-083-010

Sub-Question

Appendix J; MIAG – Benefits of Main Alternative The villagers of Messing and Inworth are facing a dramatic change to their quality of life and to their right to enjoy the quiet peace of the countryside. However, they also recognise that the UK transport infrastructure is a vital part of modern life and it is necessary for this to be constantly upgraded and maintained to the highest possible standard. This is why, despite the changes and challenges to be faced by the two villages, there has been no opposition to the development of the A12 corridor. The villages and their representatives fully acknowledge the need to upgrade that major

arterial route and new entry and exit junctions are a necessary part of this. The villages of Messing and Inworth are not opposed to the creation of a junction on the A12 at point 24 but safety is paramount. The concerns of the villagers, expressed through the actions and endeavours of the Messing and Inworth Action Group, (MIAG), are to ensure the best possible standards of safety for those living in the villages, and, equally importantly, for the road users on the A12 and surrounding roads. This includes horse riders, cyclists, pedestrians and school children. The concerns voiced by all stakeholders, from Essex County Council, Parliament and the MIAG about the National Highways proposal for Junction 24 are dealt with in great detail in other reports and will not be addressed here. This document is solely to review the benefits of the Main Alternative, (MA), and no mention has been made of the concomitant negatives. On the stated basis that Essex County Council 'will never have enough money' to bring all roads surrounding the proposed Junction 24 up to minimum Highways Standard levels of safety, the Main Alternative (MA) offers the following solutions and benefits; 1. The route of the MA new road system across land that does not create land 'islands' surrounded by roads. The dangers of access and egress for farmers, or subsequent house developments, are clear and obvious. The MA follows, for large part, the old "Cockle line" route. This means that much of the gradient and shaping work has already been outlined. 2. The substrate of the MA route would be constructed to Highways Standard, whereas the route today is of a substandard construction incapable of supporting high volumes of traffic and heavy goods vehicles. 3. Road safety standards would be intrinsically woven into the MA route design, whereas today these roads are dangerous in multiple respects including the fact that they are not sealed, no kerbs, have no formalised passing places, inadequate road surface drainage, causing the B1023 to be flooded on a regular basis. 4. Major disruption to traffic flow would be avoided, as the connections to B1023 and A12 would only need to be completed when all the other parts of the road building are finished. 5. Construction of the MA route would provide a safe working environment for road construction staff and residents, eliminating all safety hazards / risks associated with working on a "live road" (existing B1023). 6. The route of the MA avoids bottle necks and pinch point issues that would require major land acquisition and massive disturbance to residents and road users on the B1023 (Inworth Road). The difficulties of Hinds Bridge and Kelvedon Road would be completely negated; 7. The B1023 stretch of road serving Inworth is already a Royal Mail 'no go' area as postal services will not deliver to properties on the road as it is deemed too dangerous. The MA allows normal expected delivery services to operate safely, and this would include food delivery and parcel services. Safe access and egress from private properties is also assured with the adoption of the MA; 8. The need to conduct major upgrade works on all local roads that would act as feeder and 'rat run' routes to Junction 24 would be obviated by the creation of the MA; 9. Ancient village buildings, including the Church in Messing and the Conservation Area at the heart of Messing would

be preserved, as there would be no material advantage for traffic to use these roads. The original Messing Action Group report highlights all the dangers of this anticipated traffic flow. The corollary rational is that by adopting the MA all these issues and safety risks are removed. 10. The safety of schoolchildren whilst both walking to and from school on the existing roads, and their wellbeing from breathing clean air, is also maintained by the benefits of adopting the MA. 11. Safety is an absolute priority for NH and the MA enables the safety of all road users, motorised or other, to be maintained to the highest possible and practical levels; 12. The adoption of the MA route would provide NH with a "Right First Time" culture. There would be no additional expense in rectifying deficiencies associated in an attempt to modify B1023 road configuration and roundabout improvements. 13. Design and construction of the MA road will provide better sound proofing/barriers mitigating noise levels from increased traffic volumes. 14. Road speed can be increased as the road will no longer be residential. (*Special road surface material can be used to reduce noise, no benefit under 30mph) 15. Point 13 will improve and protect historical buildings from vibrations caused by increase of traffic volumes. 16. Sustainability – MA will be purpose built to accommodate future increase in traffic volumes from surrounding developments in Tiptree, Tolleshunt D'arcey, Maldon and other villages and communities. 17. Adoption of MA by ECC – Because the road will be constructed to latest specifications and regulations, the maintenance of the road and its surface condition will provide financial relief for ECC/Essex Highways for a considerable period than if the B1023 was amended. 18. The MA will permit the B1023 to return to being a village road, allowing walkers, cyclists, and horse riders to use the entire length of B1023 (from Feering boundary to Perrywood Nursery) with confidence and safety. 19. Traffic calming measures could be deployed along B1023 making point 14 safer for walkers, cyclists and horse riders. 20. If MA is required to be maintained or due to a vehicle accident the road is closed, the B1023 can provide temporary relief for traffic to access Jct 24. If the NH B1023 plan was to experience the same scenario, there would be no alternative route (e.g. Hines Bridge Closure). 21. Adoption of the MA plan will improve resident's wellbeing and enjoyment of their properties.
Applicant's Response
The Applicant welcomes the general support of the proposed scheme from the Interested Party. The Applicant appreciates the list of benefits of the Main Alternative provided by the Interested Party and acknowledges that a

bypass of Inworth Road would have some benefit on the community. However, as stated in the Junction 24, Inworth Road and Community Bypass Technical Report [APP-095], the assessment of alternative bypass option considered both the benefits and disbenefits of the four proposed options. The Applicant maintains the position outlined in this technical note as while the Main Alternative bypass does solve issues of traffic in some locations, it would create the same issues in other locations, to other communities. The addition of a bypass to the scheme would add an additional approximate cost of £10 million to the proposed scheme and would require approximately 40% more land to construct the bypass alone. This outweighs the benefits identified by the Interested Party and within the technical report [APP-095].

REP2-083-011

Sub-Question

Please see original document for this image

Applicant's Response

The Applicant does not consider Messing All Saints Church as being at risk of damage.

In regards to local roads and articulated lorries, traffic travelling through Messing is predicted to increase with the proposed scheme and this will include some increase in HGV movements. The existing roads through Messing do not offer an attractive route for larger HGV movements. The roads in the village are not being altered, meaning vehicles would not be likely to be traveling at any greater speed through the village than vehicles currently travel. The increase in HGV movements through Messing is likely to be from those in the weight range 7.5 to 18t. Such vehicles will already be seen in the village, in part to provide deliveries to homes and businesses within Messing.

It is unlikely that building damage would be caused by the passage of vehicles in this weight range in Messing as vehicles will be

moving at relatively low speed. It is not anticipated the additional movements have the potential to lead to significant adverse vibration effects.

REP2-083-012

Sub-Question

Appendix L; MIAG – comments on NH response to MIAG, September, 2022 Extract from NH Response to MIAG document: NH have incorrectly assumed that because Inworth Road will be the responsibility of Essex County Council the design standards used will not be to DMRB standards. In fact, the design standards used by Essex County Council are dependant upon the vehicle speeds. The Essex Highways Technical Manual refers to both Manual for Streets and DMRB standards. Referring to the use of Manual for Streets, Paragraph 6.125 (copied below) states that if values of Stopping Sight Distance from this document are used then "Appropriate speed-restraint measures must accompany any layout promoting the use of these values". Such speed-restraint measures have not been provided in the NH design for Inworth Road and Inworth Road Roundabout. For speeds in excess of 37 mph the Essex Highways Technical Manual, paragraph 6.125 advises using DMRB criteria for Stopping Sight Distance. To provide DMRB standards of Stopping Sight Distance would necessitate the use of DMRB values for horizontal and vertical alignments in order to accommodate the appropriate Stopping Sight Distances. On the section of Inworth Road north of Inworth village, where the proposed Inworth Road Roundabout is to be sited, vehicle speeds were found to be in excess of 37 mph. An Average Daily Speed (7 days) was found to be 39.3 mph and the Average Daily 85% Speed (7 days) was found to be 45.1 mph. This section of Inworth Road is currently subject to a 50 mph speed limit. Extracted from "22261-01 . B1023 Inworth Rd (N) KELVEDON . MAY 2022 (ATC)": From Essex Highways Technical Manual: Extract from NH Response to MIAG document: The statement by NH above is not correct as the extracts (copied below) from Essex Highways Technical Manual in relation to a Type B Link Road demonstrate. Under the 'Street Type Table' heading 'Carriageway width, cycle and pedestrian requirements width, cycle and pedestrian requirements' there is a requirement for a 6.75m carriageway and 1 x 2m footway + 1 x 3.5m cycle/footway cross-section. In addition, under 'Comments' there is also a requirement for minimum 3m wide verges. Under the heading 'Comments' it is stated that "Street lighting will be provided in accordance with ECC Operational Plan." In the extract below from The Essex Highways Technical Manual there is a description of a Type B Link Road and an illustration of a typical

cross section. Paragraph 6.19 states that "These are streets which link neighbourhoods within a large residential area." The NH "Response to MIAG" has quoted part of this text but has omitted "within a large residential area", which Inworth Road is clearly not. Paragraph 6.19 continues with "Again, built frontage is required." The illustration bears little resemblance to the majority of the existing Inworth Road cross section, which has long sections without any 'built frontage'. The two Google Maps extracts below highlight the general lack of 'built frontage' along Inworth Road between Feering and Tiptree. There are mostly open fields alongside Inworth Road and the "built-up" section within Inworth village, with residential property on both sides of the road, is only approximately 100m in length. In summary, the features that describe Inworth Road, in NH words, as "most accurately" a Type B Link Road are not currently present and are not planned to be provided under the NH scheme proposals. No footway is to be provided No cycle/ footway is to be provided No 3m wide verges to be provided No street lighting to be provided There is no "built frontage" for the majority of its length Extract from NH Response to MIAG document: From the above extract it is apparent that NH have wrongly assumed that the speed limit is the same as the design speed. Basing their design of the approach roads to Inworth Road Roundabout on a 30 mph design speed then justifies their use of Essex Highways Technical Manual and Manual for Streets. As earlier noted, by using Essex Highways Technical Manual or Manual for Streets values for Stopping Sight Distance, appropriate speed-restraint measures must accompany any layout promoting the use of these values. NH have not done this. Knowing that current vehicle speeds exceed 37 mph, as demonstrated earlier, the correct process for determining the design speed for a Rural Highway as detailed in CD 109 (DMRB) Chapter 2. Design Speed should be used. Design speed should be determined from Alignment and Layout constraints. This assessment would include the new works and sections of existing highway either side of the new works for a combined minimum distance of 2 km. Referring to Manual for Streets, the statements that "Most highways in built up areas can therefore be considered as streets" and "many of its key principles may be applicable to other types of streets, for example high streets and lightly trafficked lanes in rural areas" whilst true do not apply to Inworth Road. The majority of Inworth Road is not within a built-up area, nor is it lightly trafficked. The statement that "The strict application of DMRB to non-trunk routes is rarely appropriate for highway design in built up areas, regardless of traffic volume is largely superfluous since, as previously stated, the majority of Inworth Road is not within a built-up area. With regard to Inworth village specifically there is a statement that "Indeed, following the feedback from the community's reports of historical speeding, it wouldn't be appropriate to design these elements against standards that have not been specifically developed for local roads". The reports of "historical speeding" relate to the section of Inworth Road through Inworth village and further demonstrates that vehicle speeds are related to Alignment and Layout constraints and not to the posted

speed limit. The NH plan is in fact to widen Inworth Road at certain pinch-points through Inworth village to allow for the easier passage of HGVs. This widening will further exacerbate the problem of speeding vehicles within Inworth village. This section of Inworth Road should be considered separately from the section of Inworth Road where Inworth Road Roundabout is proposed to be sited. If Manual for Streets standards for forward visibility are to be applied to the section of Inworth Road through Inworth village then speed-restraint measures should also be introduced. Extract from NH Response to MIAG document: Works on Kelvedon Road would be limited to a short length (100m to 120m) of realignment to connect to the proposed Inworth Road Roundabout. Using DMRB standards for this short length will provide a better approach alignment and a good standard of visibility to allow road users to comprehend the layout and to approach the roundabout safely. The same is true for vehicles exiting the roundabout into Kelvedon Road. With good visibility on exit from the roundabout and a relatively straight horizontal alignment connecting to the existing Kelvedon Road a driver's perception of the nature of the existing road would be good. Consistently using DMRB standards for all approaches to Inworth Road Roundabout, rather than a mixture of differing standards for each approach would be less confusing and therefore safer for road users. Extract from NH Response to MIAG document: The above statement is incorrect, Inworth Road Roundabout itself has been designed to DMRB standards by NH. The statement does, again incorrectly assume that imposing a 30 mph speed limit on the Inworth Road and Kelvedon Road approaches will give a design speed of 30 mph. The current speed limit of 50 mph along this section of Inworth Road and national speed limit on Kelvedon Road, together with results of ATC results of actual vehicle speeds on Inworth Road should point to DMRB standards as being the correct standards to use. That together with a correct evaluation of design speed, using the method from CD 109 Chapter 2 previously mentioned, will give a design speed of 70 kph for Inworth Road. Mention is made of "the residential setting" of the proposed roundabout, but this is not correct since the NH design proposal has the roundabout positioned in a field. With regard to carriageway widening for vehicle swept paths. Widening would need to be considerable for the Kelvedon Road approach, due to the small values of horizontal alignment radii used. This will present a problem with a desirable value of entry kerb radius encroaching onto the adjacent exit. In the current NH design, currently without widening for swept paths, the entry kerb radius of 10m cannot be tangential with the roundabout inscribed circle diameter. This situation will be worsened when widening for swept paths has been applied. If a smaller entry kerb radius were to be used there would be a risk of HGV trailers running over the kerb lines as they entered the roundabout from Kelvedon Road. Extract from NH Response to MIAG document: Again, the NH design of the approach roads is based on the incorrect assumption that the speed limit of 30 mph (or 48 kph) is the same as the design speed. If NH were to follow the correct method for determination of design speed they would find it is 70

kph for the Inworth Road approaches. CD 109 would require a desirable minimum horizontal radius of 360m and a stopping sight distance of 120m, which would need to be available from 180m (i.e. 1.5 x 120m) in advance of the give way line. These values are far in excess of the values provided in the NH design but would make the roundabout clearly visible to drivers approaching the roundabout and therefore much safer. The long flare length on the approach of Kelvedon Road appears to have been contrived in order for the centreline horizontal radius of 40m to be considered under CD 116 rules, rather than under link road alignment rules, where a 40m radius would not satisfy even Manual for Streets requirements. The main barrier to stopping sight distance on the exit of the roundabout to Kelvedon Road is not the existing northern boundary hedge, it is the poorly designed horizontal alignment of that exit. Extract from NH Response to MIAG document: Providing "excessively widened verges" would not be necessary if the tie in to Kelvedon Road had been designed to DMRB standards, with an alignment using desirable minimum or greater horizontal radii. The tie in would only be 100m or so long and contrary to the NH belief that the impression would be of a high speed road, if good visibility was available over that length drivers would clearly be able to perceive the narrow nature of the existing Kelvedon Road as they approached it. What is irresponsible is to provide inadequate forward visibility which would not allow road users to react to unforeseen situations. The alignment of Inworth Road to the north of the roundabout is the most worrying aspect of the NH design for Inworth Road Roundabout. NH remind us again that the design speed they have used is 48 kph, based on the speed limit. With this design, drivers approaching the roundabout from the north will be faced with a 65m radius RH curve and 43m forward visibility, the roundabout itself will initially be hidden from the approaching driver's view by an existing brick wall, which is at least 1.5m high. The sightline for a driver approaching the roundabout will encroach into the opposing carriageway. If a large vehicle is exiting the roundabout as a driver is approaching, the give way line will not be visible, nor will vehicles that are queuing at the give way line. In this case there will be a risk of rear end collisions caused by the poor forward visibility. Furthermore, the visibility for vehicles exiting the roundabout onto Inworth Road north of the roundabout will be less than the 43m forward visibility provided to drivers entering the roundabout. There are accesses to a property on the west side of Inworth Road, just to the north of the roundabout which will be obscured by the previously mentioned brick wall. Stopping sight distance for vehicles exiting the roundabout will fall to about 25m in places approaching these accesses. CD 116 requires that once the roundabout inscribed circle diameter has been crossed on the exit, CD 109 Stopping Sight Distance requirements should be followed. If Inworth Road realignment north of the roundabout was to be designed to CD109 standards it would provide a much safer design. Horizontal radii of 360m or greater on the approach would allow for 120m forward visibility for vehicles both approaching and leaving the roundabout. The realignment of Inworth

Road to the south of the roundabout is of a slightly better standard than Inworth Road north realignment and Kelvedon Road. The minimum horizontal radius used here is a 90m LH curve, which would be 4 steps below desirable minimum CD 109 standards for a 70A kph design speed and therefore a departure from standards. 120m forward visibility would not be available for the current design within the DCO boundary. A Segregated Left Turn Lane (SLTL) has been provided on this approach road. Since there is only a single lane available for the SLTL to merge into downstream it will require a give way line at the merge. Priority will be given to vehicles exiting Inworth Road Roundabout in the direction of the link road to Junction 24 south roundabout. Normally it is desirable for an SLTL to be free flowing with no give way line at the merge, otherwise there is little advantage in providing it. For a free flowing SLTL there needs to be two lanes downstream of the SLTL merge. This makes the SLTL of the NH design somewhat redundant since drivers could proceed to the roundabout, turn onto the link road and have priority over vehicles merging from the SLTL, resulting in queuing at the SLTL merge. There is an error in the NH design in any case since the merge angle of the SLTL they have designed is approximately 5° but for this type of arrangement, with a give way line, the merge angle should be 20° This is to allow drivers to look over their shoulder to check for approaching traffic on the link they are merging into. The NH design of Inworth Road Roundabout does not appear to have considered how superelevation would be applied to or removed from the approach roads. Manual for Streets does not go into great detail with regard to superelevation, since it was originally intended as an urban design standard. It does however make reference to DMRB standards for superelevation, in which case the NH horizontal alignments would require 7% superelevation at some point on all approach roads with the exception of the new link road to Junction 24 south roundabout. To apply and remove 7% superelevation at the correct rate of change takes a considerable length of the alignment. The change in superelevation is usually carried out over the length of leading and trailing transition curves, but these have been omitted from the NH design. Due to the short lengths of the horizontal alignment elements, the NH design would not allow the full application of the required amount of superelevation, which could result in vehicles leaving the road in slippery conditions, particularly if the NH assumption of a 30 mph design speed is incorrect and vehicle speeds are actually higher. Extract from NH Response to MIAG document: It is highly unlikely that the introduction of a 30 mph speed limit throughout the length of these improvements will create a "self-enforcing" speed limit. The current 30 mph speed limit through Inworth village does not limit actual vehicle speeds to 30 mph, as the extract from the ATC survey below shows. NH have not proposed any speed restraint measures here, as required by Manual for Streets. Extracted from "22261-02.B1023 Inworth Rd(S) KELVEDON.MAY 2022 (ATC)": Extract from NH Response to MIAG document: Inworth Road through Inworth village and Inworth Road Roundabout design should be considered as two separate

entities. Whilst it would be desirable to reduce vehicle speeds through Inworth village the NH proposal to widen the road at certain pinch points will only exacerbate the problem by allowing vehicles to flow more freely. NH have omitted to provide any speed restraint measures, as required by the Essex Highways Technical Manual and Manual for Streets. It therefore does not, as claimed, achieve the standards set out in the Essex Highways Technical Manual and Manual for Streets. Conversely the NH design for Inworth Road Roundabout seeks to reduce vehicle speeds by providing sub-standard horizontal alignments and very short lengths of forward visibility. The design speed for Inworth Road, if calculated from Alignment and Layout constraints, including the NH proposed realignments, will be 70 kph. NH have therefore made incorrect assumptions regarding design speed and hence the appropriate design standards. They have wrongly made the assumption that applying a 30 mph speed limit to the sections of Inworth Road that currently have a 50 mph speed limit will reduce vehicle speeds to 30 mph. On this basis they have chosen to use 30 mph/ 48 kph as the design speed for their Inworth Road Roundabout approach road design. If using Essex Highways Technical Manual paragraph 6.125 values of Stopping Sight Distance, appropriate speed-restraint measures must accompany any layout promoting the use of these values, which they have not done. They have implied that the proposed 30 mph speed limit would be "self-imposing". As residents of Inworth village are aware, a 30 mph speed limit does not mean actual vehicle speeds will be 30 mph. The design standards NH have used are more suited to Urban highway design and they have wrongly implied that the entire length of Inworth Road is a "residential street" in order to justify this. A design for Inworth Road Roundabout to DMRB standards would be far safer than the NH design with its dubious visibility, tight horizontal radii, no transition curves and probable sub-standard superelevation. A design to DMRB standards would have near straight horizontal alignments on the approaches, with adequate visibility and without the need for high levels of superelevation. For drivers approaching Inworth Road Roundabout, with approach roads designed to DMRB standards, there would be a clear view of the layout. This would allow drivers plenty of time to comprehend the layout and react to queuing or any other unforeseen situation. Unfortunately, the DCO boundary based on the flawed NH design would give insufficient space to allow for a roundabout to DMRB standards to be positioned at this location. A roundabout at this location, designed to DMRB standards, including approach roads would have a much more severe impact on properties within the vicinity. The Main Alternative proposed by MIAG would locate the Inworth Road Roundabout to a more suitable position, allowing it to be designed to DMRB standards without affecting adjacent properties. The Main Alternative would bypass Inworth village completely, thereby reducing the impact of increased traffic volumes on the village and the need for widening at pinch-points

Applicant's Response
Appendix L; MIAG – comments on NH response to MIAG, September, 2022 Extract from NH Response to MIAG document: NH have incorrectly assumed that because Inworth Road will be the responsibility of Essex County Council the design standards used will not be to DMRB standards. In fact, the design standards used by Essex County Council are dependant upon the vehicle speeds. The Essex Highways Technical Manual refers to both Manual for Streets and DMRB standards. The Applicant can confirm that it is aware the Manual for Streets is not appropriate for all roads adopted by the local authority. Roads designed on behalf of Essex County Council (ECC) as part of the scheme and the standards to which they are proposed to be designed to has been shared with ECC as part of the Highways Technical Working Group. Referring to the use of Manual for Streets, Paragraph 6.125 (copied below) states that if values of Stopping Sight Distance from this document are used then "Appropriate speed-restraint measures must accompany any layout promoting the use of these values". Such speed-restraint measures have not been provided in the NH design for Inworth Road and Inworth Road Roundabout. It does not appear as though the Interested Party has considered the speed-restraining effect of the proposed roundabout. Under the proposed scheme a roundabout will be introduced. The roundabout will have the effect of changing the horizontal geometry and stopping sight distance of the road, and clear signage will be provided informing drivers of its presence. As noted in Manual for Streets 2 para 8.3.8 "the presence of sharp bends will itself lead to lower speeds" and Manual for Streets para 7.8.2 "there will be situations where it is desirable to reduce forward visibility to control traffic speed". As a result of this intervention, there is no expectation that the currently observed speeds within the existing 50mph section would continue on the approaches to the proposed roundabout.

For speeds in excess of 37 mph the Essex Highways Technical Manual, paragraph 6.125 advises using DMRB criteria for Stopping Sight Distance. To provide DMRB standards of Stopping Sight Distance would necessitate the use of DMRB values for horizontal and vertical alignments in order to accommodate the appropriate Stopping Sight Distances. On the section of Inworth Road north of Inworth village, where the proposed Inworth Road Roundabout is to be sited, vehicle speeds were found to be in excess of 37 mph. An Average Daily Speed (7 days) was found to be 39.3 mph and the Average Daily 85% Speed (7 days) was found to be 45.1 mph. This section of Inworth Road is currently subject to a 50 mph speed limit. Extracted from "22261-01 . B1023 Inworth Rd (N) KELVEDON . MAY 2022 (ATC)": From Essex Highways Technical Manual: Extract from NH Response to MIAG document: The statement by NH above is not correct as the extracts (copied below) from Essex Highways Technical Manual in relation to a Type B Link Road demonstrate. Under the 'Street Type Table' heading 'Carriageway width, cycle and pedestrian requirements width, cycle and pedestrian requirements' there is a requirement for a 6.75m carriageway and 1 x 2m footway + 1 x 3.5m cycle/footway cross-section. In addition, under 'Comments' there is also a requirement for minimum 3m wide verges. Under the heading 'Comments' it is stated that "Street lighting will be provided in accordance with ECC Operational Plan." In the extract below from The Essex Highways Technical Manual there is a description of a Type B Link Road and an illustration of a typical cross section. Paragraph 6.19 states that "These are streets which link neighbourhoods within a large residential area." The NH "Response to MIAG" has quoted part of this text but has omitted "within a large residential area", which Inworth Road is clearly not. Paragraph 6.19 continues with "Again, built frontage is required." The illustration bears little resemblance to the majority of the existing Inworth Road cross section, which has long sections without any 'built frontage'. The two Google Maps extracts below highlight the general lack of 'built frontage' along Inworth Road between Feering and Tiptree. There are mostly open fields alongside Inworth Road and the "built-up" section within Inworth village, with residential property on both sides of the road, is only approximately 100m in length. In summary, the features that describe Inworth Road, in NH words, as "most accurately" a Type B Link Road are not currently present and are not planned to be provided under the NH scheme proposals. · No footway is to be provided · No cycle/ footway is to be provided · No 3m wide verges to be provided · No street lighting to be provided · There is no "built frontage" for the majority of its length

The Street Type Table and Description from Essex Highways Technical Manual, which has been quoted in some detail by the

Interested Party, is used primarily for newly built roads, and therefore a suitable equivalent has been proposed by The Applicant.

A type B link road has been identified as the most suitable equivalent to the Inworth section of the B1023 in terms of targeting the most appropriate driver speed in the vicinity of the proposed Inworth Road roundabout. The B1023 is not a Local Distributor (type A) road. The Applicant views the appropriate classification as type B and accepts that there is overlap with classifications lower than type B, in each case Manual for Streets will apply. There are a number of residential and business frontages in the immediate vicinity of the proposed Inworth Road Roundabout and whilst they are reasonably distinct from the approximately 100m length of central Inworth, they lie within the boundary of Inworth as marked by current signage . Messing cum Inworth Parish Council have previously requested that the speed limit of the B1023 be reduced throughout the length of the existing 50mph section, and whilst the nature of the road between Hinds Bridge and the Threshelfords Business Park does not lend itself to a 30mph without changes to the nature of the road, the northern extension of this speed limit to the north of the proposed Inworth Road Roundabout has been seen as an opportunity to improve connections throughout the length of Inworth. Additionally, there is a length of the B1023 between central Inworth and Happy Gardens which remains within the existing 30mph speed limit and has similar levels of frontage of the length of B1023 in question.

Extract from NH Response to MIAG document: From the above extract it is apparent that NH have wrongly assumed that the speed limit is the same as the design speed. Basing their design of the approach roads to Inworth Road Roundabout on a 30 mph design speed then justifies their use of Essex Highways Technical Manual and Manual for Streets. As earlier noted, by using Essex Highways Technical Manual or Manual for Streets values for Stopping Sight Distance, appropriate speed-restraint measures must accompany any layout promoting the use of these values. NH have not done this. Knowing that current vehicle speeds exceed 37 mph, as demonstrated earlier, the correct process for determining the design speed for a Rural Highway as detailed in CD 109 (DMRB) Chapter 2. Design Speed should be used. Design speed should be determined from Alignment and Layout constraints. This assessment would include the new works and sections of existing highway either side of the new works for a combined minimum distance of 2 km. Referring to Manual for Streets, the statements that "Most highways in built up areas can therefore be considered as streets" and "many of its key principles may be applicable to other types of streets, for example

high streets and lightly trafficked lanes in rural areas" whilst true do not apply to Inworth Road. The majority of Inworth Road is not within a built-up area, nor is it lightly trafficked. The statement that "The strict application of DMRB to non-trunk routes is rarely appropriate for highway design in built up areas, regardless of traffic volume is largely superfluous since, as previously stated, the majority of Inworth Road is not within a built-up area. With regard to Inworth village specifically there is a statement that "Indeed, following the feedback from the community's reports of historical speeding, it wouldn't be appropriate to design these elements against standards that have not been specifically developed for local roads". The reports of "historical speeding" relate to the section of Inworth Road through Inworth village and further demonstrates that vehicle speeds are related to Alignment and Layout constraints and not to the posted speed limit.

The NH plan is in fact to widen Inworth Road at certain pinch-points through Inworth village to allow for the easier passage of HGVs. This widening will further exacerbate the problem of speeding vehicles within Inworth village. This section of Inworth Road should be considered separately from the section of Inworth Road where Inworth Road Roundabout is proposed to be sited. If Manual for Streets standards for forward visibility are to be applied to the section of Inworth Road through Inworth village then speed-restraint measures should also be introduced. Extract from NH Response to MIAG document: Works on Kelvedon Road would be limited to a short length (100m to 120m) of realignment to connect to the proposed Inworth Road Roundabout. Using DMRB standards for this short length will provide a better approach alignment and a good standard of visibility to allow road users to comprehend the layout and to approach the roundabout safely. The same is true for vehicles exiting the roundabout into Kelvedon Road. With good visibility on exit from the roundabout and a relatively straight horizontal alignment connecting to the existing Kelvedon Road a driver's perception of the nature of the existing road would be good. Consistently using DMRB standards for all approaches to Inworth Road Roundabout, rather than a mixture of differing standards for each approach would be less confusing and therefore safer for road users.

The Applicant considers the proposed Inworth Road roundabout to be the correct point to distinguish trunk road, or DMRB, design from local road design, rather than the Interested Party's suggestion to give drivers the impression they are still within a high-speed environment once they leave the proposed Inworth Road roundabout and enter the village of Inworth.

Extract from NH Response to MIAG document: The above statement is incorrect, Inworth Road Roundabout itself has been designed to DMRB standards by NH. The statement does, again incorrectly assume that imposing a 30 mph speed limit on the Inworth Road and Kelvedon Road approaches will give a design speed of 30 mph. The current speed limit of 50 mph along this section of Inworth Road and national speed limit on Kelvedon Road, together with results of ATC results of actual vehicle speeds on Inworth Road should point to DMRB standards as being the correct standards to use. That together with a correct evaluation of design speed, using the method from CD 109 Chapter 2 previously mentioned, will give a design speed of 70 kph for Inworth Road. Mention is made of "the residential setting" of the proposed roundabout, but this is not correct since the NH design proposal has the roundabout positioned in a field.

Whilst the proposed roundabout itself will be located in land currently forming a field just west of the B1023, the approach roads from the B1023 have 2 residences to the south, significantly more to the north, and is opposite a commercial business.

With regard to carriageway widening for vehicle swept paths. Widening would need to be considerable for the Kelvedon Road approach, due to the small values of horizontal alignment radii used. This will present a problem with a desirable value of entry kerb radius encroaching onto the adjacent exit. In the current NH design, currently without widening for swept paths, the entry kerb radius of 10m cannot be tangential with the roundabout inscribed circle diameter. This situation will be worsened when widening for swept paths has been applied. If a smaller entry kerb radius were to be used there would be a risk of HGV trailers running over the kerb lines as they entered the roundabout from Kelvedon Road.

The geometry of the Kelvedon Road approach to the proposed Inworth Road roundabout are in keeping with the onward nature of Kelvedon Road, to discourage drivers of large vehicles from using this road.

Extract from NH Response to MIAG document: Again, the NH design of the approach roads is based on the incorrect assumption that the speed limit of 30 mph (or 48 kph) is the same as the design speed. If NH were to follow the correct method for determination of design speed they would find it is 70 kph for the Inworth Road approaches. CD 109 would require a desirable minimum horizontal radius of 360m and a stopping sight distance of 120m, which would need to be available from 180m (i.e. 1.5 x 120m) in advance of the give way line. These values are far in excess of the values provided in the NH design but would make the roundabout clearly visible to drivers approaching the roundabout and therefore much safer. The long flare length on the approach of Kelvedon Road appears to have been contrived in order for the centreline horizontal radius of 40m to be considered under CD 116 rules, rather than under link road alignment rules, where a 40m radius would not satisfy even Manual for Streets requirements. The main barrier to stopping sight distance on the exit of the roundabout to Kelvedon Road is not the existing northern boundary hedge, it is the poorly designed horizontal alignment of that exit. Extract from NH Response to MIAG document: Providing "excessively widened verges" would not be necessary if the tie in to Kelvedon Road had been designed to DMRB standards, with an alignment using desirable minimum or greater horizontal radii. The tie in would only be 100m or so long and contrary to the NH belief that the impression would be of a high speed road, if good visibility was available over that length drivers would clearly be able to perceive the narrow nature of the existing Kelvedon Road as they approached it. What is irresponsible is to provide inadequate forward visibility which would not allow road users to react to unforeseen situations. The alignment of Inworth Road to the north of the roundabout is the most worrying aspect of the NH design for Inworth Road Roundabout. NH remind us again that the design speed they have used is 48 kph, based on the speed limit. With this design, drivers approaching the roundabout from the north will be faced with a 65m radius RH curve and 43m forward visibility, the roundabout itself will initially be hidden from the approaching driver's view by an existing brick wall, which is at least 1.5m high. The sightline for a driver approaching the roundabout will encroach into the opposing carriageway. If a large vehicle is exiting the roundabout as a driver is approaching, the give way line will not be visible, nor will vehicles that are queuing at the give way line. In this case there will be a risk of rear end collisions caused by the poor forward visibility. Furthermore, the visibility for vehicles exiting the roundabout onto Inworth Road north of the roundabout will be less than the 43m forward visibility provided to drivers entering the roundabout. There are accesses to a property on the west side of Inworth Road, just to the north of the roundabout which will be obscured by the previously mentioned brick wall. Stopping sight distance for vehicles exiting the roundabout will fall to about 25m in places approaching these accesses. CD 116 requires that once the roundabout inscribed circle diameter has been crossed on the exit, CD 109 Stopping Sight Distance requirements should be followed. If

Inworth Road realignment north of the roundabout was to be designed to CD109 standards it would provide a much safer design. Horizontal radii of 360m or greater on the approach would allow for 120m forward visibility for vehicles both approaching and leaving the roundabout. The realignment of Inworth Road to the south of the roundabout is of a slightly better standard than Inworth Road north realignment and Kelvedon Road. The minimum horizontal radius used here is a 90m LH curve, which would be 4 steps below desirable minimum CD 109 standards for a 70A kph design speed and therefore a departure from standards. 120m forward visibility would not be available for the current design within the DCO boundary.

A Segregated Left Turn Lane (SLTL) has been provided on this approach road. Since there is only a single lane available for the SLTL to merge into downstream it will require a give way line at the merge. Priority will be given to vehicles exiting Inworth Road Roundabout in the direction of the link road to Junction 24 south roundabout. Normally it is desirable for an SLTL to be free flowing with no give way line at the merge, otherwise there is little advantage in providing it. For a free flowing SLTL there needs to be two lanes downstream of the SLTL merge. This makes the SLTL of the NH design somewhat redundant since drivers could proceed to the roundabout, turn onto the link road and have priority over vehicles merging from the SLTL, resulting in queuing at the SLTL merge. There is an error in the NH design in any case since the merge angle of the SLTL they have designed is approximately 5° but for this type of arrangement, with a give way line, the merge angle should be 20° This is to allow drivers to look over their shoulder to check for approaching traffic on the link they are merging into. The NH design of Inworth Road Roundabout does not appear to have considered how superelevation would be applied to or removed from the approach roads.

Provision for a Segregated Left Turn Lane (SLTL) has been modelled in traffic microsimulation software and was found to improve the capacity of the proposed Inworth Road Roundabout, contrary to the assertion made by the Interested Party. However, through further optimisation of the detailed design of this roundabout, a SLTL is no longer believed to be required to achieve acceptable capacity and performance, whilst still according with the preliminary design.

Manual for Streets does not go into great detail with regard to superelevation, since it was originally intended as an urban design standard. It does however make reference to DMRB standards for superelevation, in which case the NH horizontal alignments would require 7% superelevation at some point on all approach roads with the exception of the new link road to Junction 24 south roundabout. To apply and remove 7% superelevation at the correct rate of change takes a considerable length of the alignment. The change in superelevation is usually carried out over the length of leading and trailing transition curves, but these have been omitted from the NH design. Due to the short lengths of the horizontal alignment elements, the NH design would not allow the full application of the required amount of superelevation, which could result in vehicles leaving the road in slippery conditions, particularly if the NH assumption of a 30 mph design speed is incorrect and vehicle speeds are actually higher.

The Applicant agrees that Manual for Streets does not go into great detail with regard to superelevation, The superelevation of the approaches to the proposed Inworth Road roundabout from the north, south and east will be lower than 5% to act as a speed control measure.

Extract from NH Response to MIAG document: It is highly unlikely that the introduction of a 30 mph speed limit throughout the length of these improvements will create a "self-enforcing" speed limit. The current 30 mph speed limit through Inworth village does not limit actual vehicle speeds to 30 mph, as the extract from the ATC survey below shows. NH have not proposed any speed restraint measures here, as required by Manual for Streets. Extracted from "22261-02.B1023 Inworth Rd(S) KELVEDON.MAY 2022 (ATC)": Extract from NH Response to MIAG document: Inworth Road through Inworth village and Inworth Road Roundabout design should be considered as two separate entities. Whilst it would be desirable to reduce vehicle speeds through Inworth village the NH proposal to widen the road at certain pinch points will only exacerbate the problem by allowing vehicles to flow more freely. NH have omitted to provide any speed restraint measures, as required by the Essex Highways Technical Manual and Manual for Streets. It therefore does not, as claimed, achieve the standards set out in the Essex Highways Technical Manual and Manual for Streets. Conversely the NH design for Inworth Road Roundabout seeks to reduce vehicle speeds by providing sub-standard horizontal alignments and very short lengths of forward visibility. The design

speed for Inworth Road, if calculated from Alignment and Layout constraints, including the NH proposed realignments, will be 70 kph. NH have therefore made incorrect assumptions regarding design speed and hence the appropriate design standards. They have wrongly made the assumption that applying a 30 mph speed limit to the sections of Inworth Road that currently have a 50 mph speed limit will reduce vehicle speeds to 30 mph. On this basis they have chosen to use 30 mph/ 48 kph as the design speed for their Inworth Road Roundabout approach road design. If using Essex Highways Technical Manual paragraph 6.125 values of Stopping Sight Distance, appropriate speed-restraint measures must accompany any layout promoting the use of these values, which they have not done. They have implied that the proposed 30 mph speed limit would be "self-imposing". As residents of Inworth village are aware, a 30 mph speed limit does not mean actual vehicle speeds will be 30 mph. The design standards NH have used are more suited to Urban highway design and they have wrongly implied that the entire length of Inworth Road is a "residential street" in order to justify this. A design for Inworth Road Roundabout to DMRB standards would be far safer than the NH design with its dubious visibility, tight horizontal radii, no transition curves and probable sub-standard superelevation. A design to DMRB standards would have near straight horizontal alignments on the approaches, with adequate visibility and without the need for high levels of superelevation. For drivers approaching Inworth Road Roundabout, with approach roads designed to DMRB standards, there would be a clear view of the layout. This would allow drivers plenty of time to comprehend the layout and react to queuing or any other unforeseen situation. Unfortunately, the DCO boundary based on the flawed NH design would give insufficient space to allow for a roundabout to DMRB standards to be positioned at this location. A roundabout at this location, designed to DMRB standards, including approach roads would have a much more severe impact on properties within the vicinity. The Main Alternative proposed by MIAG would locate the Inworth Road Roundabout to a more suitable position, allowing it to be designed to DMRB standards without affecting adjacent properties. The Main Alternative would bypass Inworth village completely, thereby reducing the impact of increased traffic volumes on the village and the need for widening at pinch-points

The Applicant maintains that given the onward nature of the B1023 to the south of the proposed Inworth Road Roundabout, the Design Manual for Roads and Bridges would not be an appropriate standard to use for the approaches and exits of the roundabout. The Applicant believes the suggestions made by MIAG would actively encourage driver behaviours more appropriate to trunk road conditions within the village of Inworth. .

Messing and Inworth Parish Council	**REP2-088-001**
Sub-Question	
Submission ID: 13719 I wish to make relevant representations about the SOCG with National Highways	
Applicant's Response	
The Applicant notes the Interested Party's request.	
Ministry of Defence	**REP2-089-001**
Sub-Question	
MOD Safeguarding Proposal: NSIP Application by National Highways for an Order Granting Development Consent for the A12 Chelmsford to A120 widening scheme Location: A12 Chelmsford to A120 Thank you for consulting the Ministry of Defence (MOD) on the above proposed development which was received by this office.	

The Defence Infrastructure Organisation (DIO) Safeguarding Team represents the Ministry of Defence (MOD) as a consultee in UK planning and energy consenting systems to ensure that development does not compromise or degrade the operation of defence sites such as aerodromes, explosives storage sites, air weapon ranges, and technical sites or training resources such as the Military Low Flying System.

The applicant is seeking an order of Granting Development Consent for the A12 Chelmsford to A120 widening scheme.

After reviewing the application documents, I can confirm the MOD has no safeguarding objections to this proposal.

The MOD must emphasise that the advice provided within this letter is in response to the information detailed in the document titled consultation dated January 2023. Any variation of the parameters (which include the location, dimensions, form, and finishing materials) detailed may significantly alter how the development relates to MOD safeguarding requirements and cause adverse impacts to safeguarded defence assets or capabilities. In the event that any amendment, whether considered material or not by the determining authority, is submitted for approval, the MOD should be consulted and provided with adequate time to carry out assessments and provide a formal response.

I trust this is clear however should you have any questions please do not hesitate to contact me.

Yours faithfully

Jill Roberts Ministry of Defence Safeguarding Department St George's House DIO Headquarters DMS Whittington Lichfield Staffordshire WS14 9PY

Tel: E-mail: DIO-safeguarding-statutory@mod.gov.uk

02 February 2023 Jill Roberts DIO Safeguarding

Applicant's Response

The Applicant notes the content of this representation. Should any material change occur to the design of the proposed scheme that requires approval from the ExA, the Ministry of Defence would be consulted as a prescribed consultee.

Pegasus (Prested) Investments Limited group

REP2-095-001

Sub-Question

Pegasus (Prested) Investments Ltd Company number 11230014 (PPI) has registered an interest in these proceedings. A number of wholly owned subsidiary companies manage the business operations at Prested Hall including Bluemoor Properties Limited (company number 07247080) which owns the freehold of land included within the Order limits including the title numbers referred to in plots 15/13a, 15/13b, 15/13c and 15/13d of the Book of Reference. As such Bluemoor Properties Limited (represented by PPI) is an affected person for the purposes of the forthcoming CPO hearings and wishes to participate/ submit representations in this regard. In particular, PPI/ Bluemoor Properties does not consider that the impact of the scheme proposals on its business activities (which include a wedding business/gym/serviced apartments/ spa) has been fully considered; nor does it consider that the current mitigation proposals are adequate to ameliorate the negative impacts on our clients' business activities and reserves the right to make further submissions in this regard. Further, PPI/Bluemoor Properties Ltd wishes to put on record that there has been minimal engagement to date by National Highways with our client, which it considers unacceptable.

Applicant's Response
In order to mitigate the impact on the Interested Party's business, the Applicant has included proposals to introduce individual trees along the new access to recreate the avenue that is being lost along with groups and individual trees to mitigate views of the proposed scheme and reinforce the parkland nature of the approach to Prested Hall. Where unaffected by the proposed scheme, trees lining the existing access would be retained. Tree loss and retention are shown on the Retained and Removed Vegetation Plans Part 2 Sheet 15 [AS-017] and planting proposals are illustrated on Environmental Statement Figure 2.1 Environmental Masterplan Part 3 Sheet 15 [APP-088]. The Applicant predicts a reduction in noise of 1.7 dB(A) (minor) at Prested Hall. Although the predicted increase in traffic (flow and speed) and the alignment change could lead to a predicted noise increase around this location, this is offset at Prested Hall by the planned resurfacing of the concrete surface on the A12 with low noise surfacing. The noise change is shown on sheet 9 of Figure 12.8 [APP-235]. Some impacts are expected on the access of Prested Hall during construction. The Applicant will work closely with the Interested Party to fully understand the site operations and how this relates to the construction programme in order to minimise impacts on business continuity where possible. The construction phasing is being developed to maintain access to Prested Hall as far as possible, however, there would be activities such as the tie in points to the new Prested Hall access where access may need to be managed and may cause some disruption. The Applicant held meetings with the Interested Party on 17th September 2020, 25th November 2020, 14th June 2021 and 23rd June 2022. These meetings provided scheme updates to the Interested Party and an opportunity to express any concerns. The feedback received led to the reduction in permanent land take as shown by plots 15/13b, 15/13c and 15 13d on the Land Plans [AS-009]. to The Applicant welcomes further engagement to continue to work towards solutions to mitigate the impacts on the

business.
Pegasus (Prested) Investments Limited group **REP2-098-001**
Sub-Question
Pegasus Prested Investments Ltd (PPI Ltd -interested party ref 20033132) is parent company to a number of companies involved in the operation of the conference centre/ wedding venue/hotel/spa/gym businesses based at Prested Hall, including Bluemoor Properties Ltd which owns land within the draft DCO Order limits).
Applicant's Response
The Applicant notes the Interested Party's comments.
REP2-098-002
Sub-Question
PPI (including Bluemoor Properties Limited and its other subsidiary companies) is concerned about the impact the road scheme will have on its business activities and land holdings (including Bluemoor Properties Ltd).
Applicant's Response
The Applicant will continue to engage with the Interested Party as the scheme design develops to mitigate impacts as far as possible and has offered a meeting with the Interested Party in order to discuss this further.

REP2-098-003
Sub-Question
PPI is concerned that the impact of the scheme in relation to this Property has not been properly taken into account both in terms of the impact on journey time for customers to these businesses and the efficacy of the mitigation works currently proposed in this area to ameliorate the negative impact of the proposals on the PPI group's business activities.
Applicant's Response
The Applicant notes the Interested Party's concerns about access to Prested Hall becoming more convoluted and creating longer journey times. However, the Applicant does not consider that access would significantly worsen as a result of the proposed scheme. For travellers approaching from the A12 southbound, they can currently access Prested Hall via the junction 24 slip-roads. Under the proposed scheme, those travellers would instead exit the A12 at junction 25, and travel down along the de-trunked section of road (the current A12 carriageway) towards the new Prested Hall access. This is not expected to result in any significant change in journey times, other than due to the de-trunked section of road having a lower speed limit than the current A12. For travellers approaching from the A12 northbound, they can currently leave the A12 at junction 23 and travel through Kelvedon to access Prested Hall via the junction 24 slip roads. Under the proposed scheme, they would instead exit at the new proposed junction 24 and travel into Feering then toward the new Prested Hall access. This is likely to result in slightly shorter journey times than travelling through Kelvedon.

For local trips not using the A12, there would be no significant change in access routes.

The Applicant has included proposals to introduce individual trees along the new access to recreate the avenue and reinforce the parkland nature of the approach to Prested Hall. Where unaffected by the proposed scheme, trees lining the existing access would be retained. Tree loss and retention are shown on the Retained and Removed Vegetation Plans Part 2 Sheet 15 [AS-017] and planting proposals are illustrated on Environmental Statement Figure 2.1 Environmental Masterplan Part 3 Sheet 15 [APP-088]. The Applicant would continue to engage with the Interested Party as the landscape designs are developed in the detailed design phase.

Around the existing junction 24, between minor and major decreases in noise are predicted as a result of the scheme. This would be due to a combination of the resurfacing of the existing section of concrete road and the realignment of the A12. For further detail please refer to paragraph 12.9.60 of the Environmental Statement - Chapter 12: Noise and Vibration [APP-079].

REP2-098-004

Sub-Question

An amendment to the draft ASI to include a visit to Prested Hall after would provide the examining authority with an opportunity to view the entrance to Prested Hall for themselves and understand the extent of the private approach road which will be lost, the likely impact on access (off both the A12 north and south in terms of both timing and visual appeal) to the Prested Hall complex for customers/guests as a result of the scheme and the extent to which the A12 will be brought closer to Prested Hall and in particular the areas used by guests in particular for wedding photography and other outside/noise sensitive activities associated with wedding business and other enterprises ongoing at Prested Hall. This will help inform the adequacy of the mitigation works in this area.

The draft itinerary already takes in Feering and a detour up the drive to Prested Hall with a short stop to view those parts of the grounds used in conjunction with the wedding business in particular could be accommodated in a time efficient manner.

Applicant's Response

The Applicant notes this request. The final ASI locations have been published by the ExA. The locations have been chosen based on their accessibility, issues raised, time available on the day and route logistics.

Notwithstanding this, the Applicant would have no objection to the ExA visiting Prested Hall if the ExA considered it appropriate to do so.

Rosemary Woodgate

REP2-102-001

Sub-Question

Thank you for your reply 7.2.23 I still do not understand why there is a need for this bridge. We have lived without that right of way for decades. People do not try to cross the A12. If it is really so important, build it as an underpass so there is no visible impact on local residents and the vegetation can be replanted. It is incorrect to say that a similar level of vegetation would be destroyed whether the footbridge runs from Gershwin Blvd or behind Halfacres. If it goes from Gershwin then it just goes over the trees by the A12 whereas if you route it from Halfacres & Olivers Drive, it cuts through the A12 tree screen but it also cuts through the small woodland that divides the end of Olivers Dr from Gershwin Blvd. At the moment that amenity space is enclosed but that is lost as soon as you cut through the vegetation. Further, the houses in Halfacres & Olivers Dr would be much closer to the bridge if it is routed that way than the houses the other side of the balancing pond would be if it runs from Gershwin Blvd. In addition to which Gershwin is an estate spine road and a much more suitable location than right infront of (Olivers) & behind (Halfacres) houses so surely the appropriate choice is off the spine road. Routing from Gershwin makes more sense from a roads perspective, direct impact on residents & the level of destruction of vegetation

Applicant's Response
The Applicant has submitted a Technical Note (TR01600/EXAM/9.26 Gershwin Boulevard Bridge Technical Note) at Deadline 3. The Technical Note provides reasons for the location of Gershwin Road Bridge, assesses the visual impact of the bridge and considers the suggested alternative location. The existing ground level north of the A12 is significantly higher than the A12 itself. To achieve a subway with enough strength to take the loading of the A12 running above it, and provide adequate headroom for cyclists and horseriders, the surface of the subway would need to be approximately 4.9m below the lowest point of the A12, and approximately 7.4m below the existing ground north of the A12. Ramp gradients are typically limited to 5% to ensure ease of use by disabled users, therefore approximately a 150m length of excavation would be required to reach the subway surface level on the northern side with substantial retaining features to limit this land take. To avoid an expensive tunnelling option, temporary carriageway widening would be required to enable two lanes of traffic to be maintained in each direction whilst creating verge and island worksites. These would be necessary to create the space to construct the subway using either 'top down' techniques or open cut with in situ or precast structures installed. It is likely that additional traffic management phases would be required to create this subway potentially extending the overall construction programme. There would substantial long term challenges to drain the subway by gravity and a pumped system would be an ongoing maintenance liability. The Applicant acknowledges the potential loss of the small area of woodland that divides the end of Olivers Drive from Gershwin Boulevard which is shown at risk of removal on the Retained and Removed Vegetation Plans Part 1 [APP-035] and will seek at detailed design to minimise this loss. However, a similar amount of screening vegetation along the A12 would be lost for either option opening up views of the road and traffic.

Whilst the bridge would be closer to the properties in Halfacres and Olivers Drive than Gershwin Boulevard and the alternative location would be set in the context of the highway, where there is less scope for landscape and visual mitigation at the suggested alternative location.

REP2-102-002

Sub-Question

Please advise how applications under the Land Compensation Act 1973 are to be submitted.

Applicant's Response

Under Part I Land Compensation Act 1973 ('the Act'), compensation can be claimed by people who own and also occupy property that has been reduced in value by more than £50 by physical factors caused by the use of a new or altered road. The physical factors are noise, vibration, smell, fumes, smoke and artificial lighting and the discharge on to the property of any solid or liquid substance.

The cause of the physical factors must be the new or altered road in use. Compensation cannot be claimed for the effects of traffic further down the road where no alteration has taken place. Loss of view or privacy, personal inconvenience and physical factors arising during the construction of the road are also not included under Part I compensation.

The first day for claiming compensation is a year and a day after the new or altered highway first comes into public use (known as the 'first claim day').

The Claim form is here

Part_I_Claim_form.pdf (publishing.service.gov.uk)

The claim can be submitted at the appropriate time toA12ChelmsfordA120wide@nationalhighways.co.uk

Rosemary Woodgate

REP2-103-001

Sub-Question

Footpath bridge over A12 It makes much more sense, if a bridge is really necessary (which is highly debateable) & a if an underpass is not , it makes much more sense to run it over from the bend of Gershwin Blvd so that it meets directly up with Howbridge Hall Lane on the other side. That would make a much more useful path on the other side, if you are hell bent on imposing a crossing on us.

Applicant's Response

The Applicant has submitted a Technical Note (TR01600/EXAM/9.26 Gershwin Boulevard Bridge Technical Note) at Deadline 3.

The Technical Note provides reasons for the location of Gershwin Road Bridge, assesses the visual impact of the bridge and considers the suggested alternative location.

Chelmsford City Council

REP2-105-001

Sub-Question

Submission Documents In accordance with deadline 2, please find enclosed the following: • Chelmsford City Council's Local Impact Report • Chelmsford City Council's Response to the Examining Authorities Written Questions (ExQ1)
Applicant's Response
The Applicant has reviewed these submitted documents and responded accordingly at Deadline 3: · Applicants' Comments on Chelmsford City Council's Local Impact Report [TR010060/EXAM/9.33] · Applicant's Comments on Responses to ExQ1 [TR010060/EXAM/9.32]
REP2-105-002
Sub-Question
Statement of Common Ground I can confirm that Chelmsford City Council has been working with the Applicant National Highways regarding the Statement of Common Ground. A draft Statement of Common Ground will be submitted separately by the Applicant.

Applicant's Response
A draft Statement of Common Ground (SoCG) with Chelmsford City Council [REP2-016] was submitted by the Applicant at Deadline 2. This SoCG will be discussed further with Chelmsford City Council throughout the Examination, updated accordingly and submitted at future Examination deadlines as required.
REP2-105-003
Sub-Question
Hearings Further to the Pre-Examination Meeting, and in accordance with the Notification of hearings letter dated 31 January 2023, Chelmsford City Council notes that it wishes to be heard at the hearings to the examination. Chelmsford City Council has duly completed the hearing registration form(s). For the avoidance of doubt, as a Host Authority, Chelmsford City Council wishes to have speaking rights at the hearings so that its representatives can address the Examining Authority and respond to any questions raised. As the Agenda for the Environmental Matters hearing has not been set, Chelmsford City Council defers to its Local Impact Report as the basis for the speaking at the hearing. As set out in the Local Impact Report, Chelmsford City Council's main concerns are the following: • Effect upon Boreham village • Paynes Lane Bridge • Environmental Impacts
Applicant's Response
The Applicant notes the request of Chelmsford City Council to be heard at the Examination.

The Applicant continues to discuss Chelmsford City Council's main concerns with them.
REP2-105-004
Sub-Question
Comments on the Applicants draft Itinerary for the Accompanied Site Inspection (ASI) Although publicly accessible, Chelmsford City Council asks that consideration be given to stopping at B1137 Main Road, Boreham (Paynes Lane / Boreham House). These locations are accessed along Main Road Boreham and parking is available within local laybys. The reason for the site visit is to enable consideration of the setting and views of Boreham House and The Generals (listed building) and views north along Paynes Lane towards the location of the proposed Paynes Lane WCH Bridge. The Council would be grateful if the Examining Authority can have regard to visiting the following publicly accessible locations within Boreham. These are accessed along B1137 Main Road and are proposed for further mitigation measures within the Council's Local Impact Report: • Boreham Co-op (crossing) • Boreham village entrance (road narrowing) • Land outside Orchard cottages (road narrowing & softer measures) • Pedestrian entrance to recreation ground (road narrowing Thank you for your consideration of the above Yours sincerely Ruth Mabbutt Senior Planning Officer Chelmsford City Council NSIP Lead For Mr David Green Director of Sustainable Communities

Applicant's Response
The Applicant notes these requests. The final ASI locations are agreed and published by the ExA. The locations are chosen based on their accessibility, issues raised, time available on the day and how the route would work.
Samantha Mott **REP2-109-001**
Sub-Question
I wish to register my objection to the gas main coming across my land or impacting on my land and property. I am currently in the process of applying for planning permission for 2 properties on the vacant land adjoining Ullswater and this will impact on this process and its value. A previous application was submitted in 2020. I believe I have already registered this objection but am unable to find it under a search so am registering it again.
Applicant's Response
The gas main proposed to be diverted is known as the Little Braxted to Springfield main. The Applicant has engaged with Cadent Gas Limited to develop the preliminary design study for the gas main diversion. This has informed the Applicant's decision on the selected route corridor which has been incorporated into the application. A portion of the Interested Party's land shown by plot 8/39a on the Land Plans [AS-009] forms part of the gas main corridor in this location. The Applicant is aware of the planning application (reference 20/01520/OUT, Braintree District Council) that was refused in March 2021 on the grounds of harm to the countryside and direct conflict with the settlement boundary policies. An appeal was also dismissed. At present, the Applicant is continuing to work with Cadent Gas Limited to develop a detailed design and alignment for the gas main diversion within the corridor. The design of the diversion will be carried out in line with Cadent's policies and procedures

that ensure legislative and regulatory compliance of high-pressure gas mains. The diversion design and final siting within the relevant order limits will seek to minimise the impact of the diversion on the Interested Party's land as far as practicable.

The Applicant will continue to work with Cadent to develop the detailed design and will continue to engage with the Interested Party to discuss siting of the diversion, subject to Cadent's specifications and requirements as well as any constraints imposed by the DCO and EMP.

Stanfords on behalf of J A Bunting & Sons

REP2-112-001

Sub-Question

1. This written submission ("Submission") is made on behalf of the Executors of the Late Mr R Bunting, Mrs D. J Bunting, Mrs S. Bunting, Mrs T.J Holland, Mr M Bunting, Mrs M.D Wisbey and Mrs A. Wood, Partners of J A Bunting & Sons and landowners of Highfields Farm, Inworth Hall Farm, Ewell Hall and Hole Farm, Kelvedon ("Landowners"). 2. A relevant representation was submitted to the Examining Authority in relation to the proposed A12 Chelmsford to A120 Widening Scheme ("A12 Scheme") on behalf of the Landowners on Friday 4th November 2022 ("Relevant Representation"). The Landowners' Interested Party reference number is 20033166. 3. This Submission is the Landowners' submission at Deadline 2 of the Examination in response to information submitted by National Highways ("Promoter") at Deadline 1 of the Examination and published on the A12 Scheme website on Wednesday 1st February 2023. The following information submitted by the Promoter is of particular relevance to the issues raised in the Relevant Representation: 3.1. 9.3 Applicant's Response to Relevant Representations – Rev 2 3.2. 9.12 Borrow Pits Supplementary Technical Note - Rev 1 3.3. 9.8 Status of Negotiations Compulsory Acquisition Schedule – Rev 1 4. Given the technical nature of the responses and further information submitted by the Promoter, it has been necessary for the Landowners to obtain advice from specialist consultants in relation to Highways, Drainage, Ecology and Borrow Pits. However, in light of the short period of time between the publication of Deadline 1 submissions and Deadline 2, it has not been possible to fully complete this review ahead of Deadline 2. 5. Therefore, the Landowner's position in respect of the information submitted at Deadline 1 is reserved and the points of objection raised in the Relevant Representation maintained. 6. In relation to the Status

of Negotiations Compulsory Acquisition Schedule, the Landowner confirms that a meeting was held on Tuesday 31st January 2023 with the Promoter. However, to date no agreement has been reached on any of the points raised in the Relevant Representation.

Applicant's Response

The Applicant continues to work with the Interested Party (IP) and will provide appropriate information and clarifications to the IP should their specialist consultants require such.

Meetings are ongoing to clarify matters with the aim of reaching agreement on technical matters such as highways, drainage, ecology and borrow pits as well as land acquisition through agreement.

Stanfords on behalf of J A Bunting & Sons

REP2-113-001

Sub-Question

Dear Sir/Madam,

We write on behalf of our client J A Bunting & Sons. We request that the examining authority add an accompanied site inspection stop to the draft itinerary on our clients land at , .

The added stop could be at the clients farm bridge which crosses the A12. The bridge can be accessed along their farm track via

At this location the examiners should be able to get a feel for the large quantity of permanent land take being proposed by National Highways.

Further details/directions can be provided in due course if required.

Please let us know if this additional inspection point can be provided.

We look forward to hearing from you. Yours faithfully, Stanfords
Applicant's Response
The final ASI locations are agreed and published by the ExA. The locations are chosen based on their accessibility, issues raised, time available on the day and how the route would work. The ExA has now published the final ASI [EV-010] which is to take place on the 2 March. Stop D on the published ASI is Highfields Farm/Ewel Hall Chase and 20 minutes has been allowed for this stop. The purpose of this stop is amongst other items, to view the extent of compulsory acquisition of the Interested Party's land. The Interested Party will need to grant permission to the ExA and accompanying persons to access this land and it is therefore considered that exact locations from which to inspect the extent of compulsory acquisition from can be determined on the day providing the duration of Stop D is no longer than the 20 minutes allocated.

Appendix A Messing response 16 March 2022

[redacted]

From: A12 Chelmsford A120 wide
Sent: 16 March 2022 16:33
To: andrew harding [redacted]
Subject: National Highways response - A12 Chelmsford to A120 widening scheme and Messing Action Group report

Dear Mr Harding

Thank you for your email on 28 February 2022 regarding the A12 Chelmsford to A120 widening scheme and the report from Messing Action Group you've sent for our comments.

To respond to this, the A12 widening project team is fully considering predicted changes to traffic levels on local roads that may arise from the A12 Widening Scheme. In regard to the traffic increase of 95 vehicles per hour (morning peak) and 64 vehicles per hour (evening peak) are for Kelvedon Road, between Messing and Inworth Road. The traffic model predicts that this increase would also occur on Harborough Hall Road between the village and the B1022. This route (Harborough Hall Road – Messing – Kelvedon Road) is the route that the model predicts some people will switch when the proposed scheme opens, instead of travelling on the B1022 – Oak Road – B1023 (Inworth Road).

In designing and assessing the A12 widening scheme, the realistic and likely significant impacts are being considered. In some instances, there may be an effect that the scheme is required to address, such as predicted impacts arising on Inworth Road. For Kelvedon Road, the percentage increase for predicted vehicle movements is high, but total flow is also relevant. For example, a road carrying a dozen vehicles per hour could have a ten-fold increase in flow without major adverse effects. Conversely a heavily trafficked road might have a small increase and be much more adversely affected. We consider that the proposed modelled flows can be accommodated on Kelvedon Road. Comparable roads throughout UK carry heavier flows without adverse safety effects.

With regard to facilities for walkers and cyclists, adding such facilities is unlikely to be justified for inclusion in the application, because there is not a sufficiently compelling need for compulsory powers for such works. It would remain the responsibility of the local highway authority (Essex County Council) to improve Kelvedon Road in this way.

Turning to your comments about the Inworth Road bypass, the A12 widening scheme will include proposed interventions to Inworth Road that will address historic drainage issues, as well as existing pinch points along the route, and the introduction of a 30mph speed limit between Park Farm and Inworth Hall Villa where the existing 30mph limit in Inworth begins. On this basis, it has been decided there is not a sufficiently compelling justification for a bypass of Inworth to be included in the A12 Widening Scheme. However, National Highways (formerly Highways England) will of course continue to respond to queries relating to the project design.

In addition, an application has been submitted to National Highways' Designated Funds for a feasibility study to consider what improvements could be made to walking and cycling facilities between Tiptree and Kelvedon, outside of the A12 widening scheme. More information on Designated Funds can be found here: [redacted]

Lastly, regarding the emails that have also been sent to staff at one of our consultants, these get directly forwarded to the project email address immediately on receipt (A12chelmsfordA120wide@nationalhighways.co.uk). This allows for more efficient and prompt logging and responses as explained in my emails to you on 8 and 11 March 2022.

Thank you once again for contacting us. If we can be of further assistance regarding this project then please do contact us directly at A12ChelmsfordA120wide@highwaysengland.co.uk.

For any other enquiries about National Highways, please contact the Customer Contact Centre on 0300 123 5000 or info@highwaysengland.co.uk.

Agnieszka Kalinowska
Project Support – Regional Investment Programme (East)
National Highways | Woodlands | Manton Lane | Bedford | MK41 7LW
[redacted]

From: andrew harding [redacted]
Sent: 28 February 2022 16:58
To: A12 Chelmsford A120 wide <A12chelmsfordA120wide@nationalhighways.co.uk>
Subject: FAO; Matt Stafford

Good afternoon

Junction 24, proposed 'feeder' route plan and the village of Messing.

You will find attached hereto a report from the Messing Action Group. This report has been extensively researched and raises several matters which we require you to immediately address.

There are, amongst many issues, matters of children's safety, toxic fume pollution, vehicle and non-vehicle safety, and life threatening dangers to residents, all of which are exposed in this report. The press are investigating several aspects of this 'consultation process', including our claims of deceit and misrepresentation.

Your response to this report and the questions raised is URGENT.

Messing Action Group

Andrew Harding
[redacted]

Appendix B Response to MIAG 04 August 2022

Phil Davie
National Highways
Woodlands
Manton Lane
Bedford MK41 7LW

by email to: [redacted]

4 August 2022

Dear Mr Harding

The project has considered the reports provided by the Messing and Inworth Action Group. When providing responses, the project is commenting against "Report on the Technical Design of the National Highways Proposal for Junction 24" but noting that the Inworth Road Roundabout design checks note as well.

Application of relevant design standards

Section 3.4 of the Report on Technical Aspects of Junction 24 Proposals and supporting design check document (the Report) makes reference to details supplied on consultation drawing HE551497-JAC-HSR-S3_J24-DR-C-0002 revision P02 and has incorrectly assumed that the Design Manual for Roads and Bridges is the appropriate standard to use. As this road will be designed for adoption by Essex County Council, the County Council's own Highways Technical Manual was consulted as part of the design process. The existing Inworth Road is most accurately described as a Type B Link Road, which "Links neighbourhoods and also serves non-residential or industrial uses." As reported to the Parish Council and the Highways Authority, a speed limit of 30mph has been proposed to be applied to Inworth Road from the existing place-setting sign just south of Brick Kiln Farm, to the southern extent of the proposed improvement works, just north of Perrywood Garden Centre. As well as this, the approach to the roundabout from Kelvedon Road is proposed to be subject to a 30mph limit.

Regarding visibility, which is explored further in Section 3.4 of the Report, the Essex County Council's Highways Technical Manual states that *"For streets with speed limits of 30mph or under in particular type B, C and D roads, Manual for Streets standards will apply."* Manual for Streets is comprised of Manual for Streets, 2007 (MfS1) and Manual for Streets 2, 2010 (MfS2) and is national guidance for local roads commissioned by the Chartered Institution of Highways & Transportation, acknowledging that the "Design Manual for Roads and Bridges [DMRB] is the design standard for Trunk Roads and Motorways (that is, roads owned and operated by National Highways and equivalent bodies across the UK, as part of the Strategic Road Network) in England, Scotland, Wales and Northern Ireland. The Manual for Streets package states that, "*a street is defined as a highway that has important public realm functions beyond the movement of*

traffic…. Most highways in built up areas can therefore be considered as streets". It also states that, "*many of its key principles may be applicable to other types of streets, for example high streets and lightly trafficked lanes in rural areas*'. The strict application of DMRB to non-trunk routes is rarely appropriate for highway design in built up areas, regardless of traffic volume. Indeed, following the feedback from the community's reports of historical speeding, it wouldn't be appropriate to design these elements against standards that have not been developed specifically for local roads. The existing Kelvedon Road does not easily fall into any of the categories for new roads described by the ECC Highways Technical Manual, but it is equally inappropriate to use design standards for the Strategic Road Network to appraise historic "country lanes".

Horizontal Alignment, stopping sight distances, swept paths and verge widening on Junction 24 approach roads

As the DMRB is not appropriate for the design of the roundabout or the Inworth Road and Kelvedon Road approaches to the roundabout, the report's references to CD 109 and CD 116 are not correct. The low speed, in combination with the residential setting means that transition curves are not needed. Widened lanes for swept paths and verge widening for stopping sight distances will be included at the detailed design stage and the necessary land for this has been assessed as part of the development consent order under the limits of deviation.

As mentioned earlier, the design of the approaches to this roundabout are against the principles set out in MfS rather than DMRB CD 109. Table 8.1 of MfS2 details the minimum radii for streets based on the design speed. In the case of the approach roads in question this is 48kph, which requires a minimum curve radius of 41m. There is some merit in applying para 3.36.1 Note 2 of CD 166 which states "*in advance of the entry flare, approach curvature follows CD 109 requirements on horizontal radius"* to infer where link road standards regarding horizontal alignment and stopping sight distance are appropriate to begin. The proposed approach to the roundabout from Kelvedon Road begins to flare from the location of the existing t-junction and as such it is not appropriate to design the horizontal alignment of the approach as a link road, against Manual for Streets or otherwise. The main barrier to stopping sight distance on the exit of the roundabout onto Kelvedon Road is the existing northern boundary hedge.

Kelvedon Road is narrow in nature and does not meet the standards within the Design Manual for Roads and Bridges and providing excessively widened verges on the exit of the roundabout may give drivers the impression that the road is suitable for high speed beyond the roundabout. To pursue this would be entirely irresponsible. This matter is explored further in response to comments made in Section 3.5 of the report regarding the improvements to Inworth Road.
As stated previously, the arm connecting the proposed roundabout to Inworth Road north of the roundabout is subject to a speed limit of 30mph and a design speed of 48kph. The minimum requirements of stopping sight distance of 43m (including bonnet length), and horizontal curvature of 41m in advance of the entry flare are met. The case is identical for the arm connecting the proposed roundabout to Inworth Road south of the roundabout, including the proposed Segregated Left Turn Lane.

Improvements through Inworth Village

Section 3.5 of the report describes the Road Improvements through Inworth Village. The traffic forecasting shows the proposed location of Junction 24, serving traffic in all-directions between the existing Junction 23 and Junction 24 increases the desirability of Inworth Road south Junction 24 by reducing journey times to the A12 from locations in the wider network. This has been explored in some detail throughout the preliminary design stage of the scheme. There is no meaningful change to the forecasted traffic on Inworth Road between the Gore Pit Junction and the proposed Roundabout, and as such there are no proposed improvements to Hinds Bridge which lies in this section. The project suggests that if the community wish to see improvements to this bridge they contact the authority responsible for it – Essex County Council.

The improvements south of the proposed Inworth Road roundabout seek to resolve historic pinch-points and drainage issues, and as detailed previously, a self-enforcing 30mph speed limit is proposed throughout the length of these improvements. Again, references to the DMRB are not appropriate; research carried out in the preparation of MfS1 (TRL Report 661) considered the influence of geometry on vehicle speed and casualties in 20 residential and mixed-use areas in the UK and found that improved visibility was found to correlated with increased vehicle speeds, and the horizontal alignment is in accordance with the minimum standards for the design speed of 48kph. The project team is in discussion with Essex County Council regarding these improvements, which offset the increase in desirability of Inworth Road caused by the strategic location of the proposed Junction 24.

Conclusion

In conclusion, incorrect assumptions regarding the design speed and appropriate design standards have been used throughout appraisal of the proposed J24 approach roads and improvements through Inworth Village. Were these design standards to be applied, the proposed 30mph speed limit would not be self-enforcing due to the generous horizontal alignment and visibility splays which would give the impression to drivers that higher speeds would be appropriate. The preliminary design achieves the standards set out in the Essex Highways Technical Manual, and Manual for Streets.

The project has considered the “Report on the Design of the Main Alternative for Junction 24”. The project has undertaken detailed work into a proposed bypass and that work has now been shared with the Parish Council and will also be included in Chapter 3 of the Environmental Statement.

I hope that this information is helpful.

Yours sincerely

Phil Davie
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